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ABSTRACT

This complete Kids into Health Careers (KIHC) information package contains guidance materials to use when working with local school systems. It provides operating instructions on how to choose and address an audience, either at a school or community-based organization. (KIHC is an initiative being developed to supplement the pool of qualified applicants from economically and educationally disadvantaged and underrepresented minority populations for entry into health professions training.) The packet includes an overview booklet; a poster with information on the back about what KIHC is, why it is so important, who KIHC is trying to reach, examples of career opportunities in the health professions, and reference guides; an operating instructions booklet covering qualifying, financial aid, fulfilling a need, selection criteria, addressing target audiences, and reporting elements; and a booklet with presentation models for students K-5, students 6-12, parents, and teachers, counselors, and school administrators. Appended are a list of 17 references detailing career opportunities in the health field; additional information on specific health careers and certificate positions; a list of 30 sources of financial aid; and a list of federally-funded health facility contacts for additional information. (YLB)

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ED 463 442

Kids into Health Careers Kit

Anthony Hollins, Jr., Maurice Davis, and Devonaline T. Horne, Compilers

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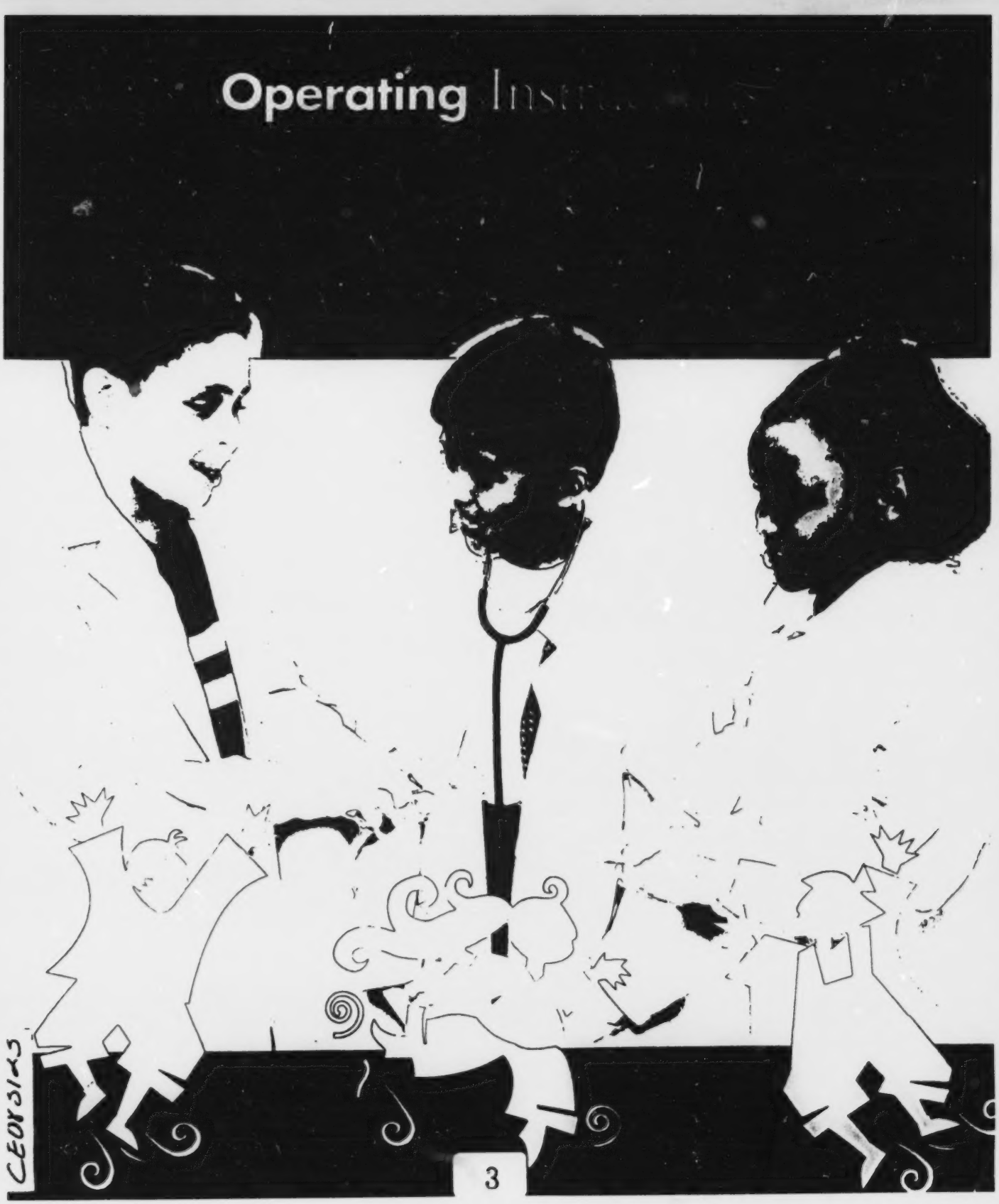

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kids into health careers

"The Bureau of Health Professions is developing strategies to achieve a diverse, culturally competent health professions workforce. In FY 1999, all applicants are encouraged to work with school systems, through the high school level, where there is a high percentage of minority and disadvantaged students. The objectives of developing this working relationship are to: (1) encourage and inform minority and disadvantaged teenage students of educational and career opportunities in health professions and (2) assist minority and disadvantaged students in planning and preparing for post secondary education in the health care professions."

From this directive, in the *1998 Health Resources and Services Administration (HRSA) Preview*, the Kids into Health Careers Initiative was born. Operating through HRSA's Bureau of Health Professions (BHPr), it calls on all Bureau grantees to choose a local school or community based organization, meet with school officials, students and parents about Kids into Health Careers and report the results.

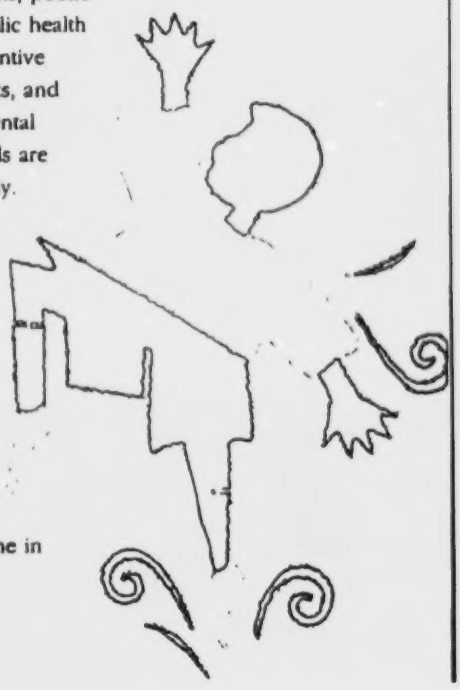
As a grantee, you will find everything you need in this package, including visual aids, talking points and reporting requirements. All you have to do is fill in your own experience and information about your local workplace. The HRSA supported BHPr initiative Kids into Health Careers has a four fold message:

- There are job opportunities in the health care field,
- Qualifying for them is an achievable and rewarding goal,
- Financial aid is available, and
- This work fills a critical need in many medically underserved communities, where primarily minority and disadvantaged people are not getting the health care they need.

Job Opportunities

Right now nearly 3,000 mostly minority or rural communities throughout the United States do not have enough health care providers to meet basic medical, dental and mental health needs. If that is startling, consider these projections for the future:

- Only 2,755 physicians are trained in public health and the number of public health residents is declining while an estimated 5,000 dentists are needed to meet public health needs.
- A recent Bureau of Health Professions study revealed that California will require 43,000 new nurses by 2010 and 74,000 by 2020.
- Support personnel, including epidemiologists, biostatisticians, environmental health professionals, toxicologists, public health nurses, public health nutritionists, preventive medicine specialists, and behavioral and mental health professionals are also in short supply.



What these numbers add up to is a great need for health care professionals and also a great opportunity for young people who may not know it exists. In addition, there is something for every one in

the health care field. Physicians, dentists and nurses are only three of over 250 different health care professions available. From athletic trainer to nurse midwife to pharmacy technician, health care careers run the gamut of interests, abilities and educational levels.

Qualifying

Olympic athletes begin training in childhood, because by the time an athlete reaches the age of 18, it is too late to develop the strength, skills and mind set necessary to compete. This is true in other areas of endeavor as well, including the health care professions. While job opportunities in health care are many and growing, a student, who has not taken the appropriate courses during high school, cannot go on to further study or training in the field. Thus, the earlier a child and his/her family thinks of a health care career, the more likely the child will have the qualifications to go on to further training and a belief that the goal is attainable. Encouraging both the desire to be a health professional and confidence to get there, is the aim of the HRSA supported BHPR Initiative, Kids into Health Careers.

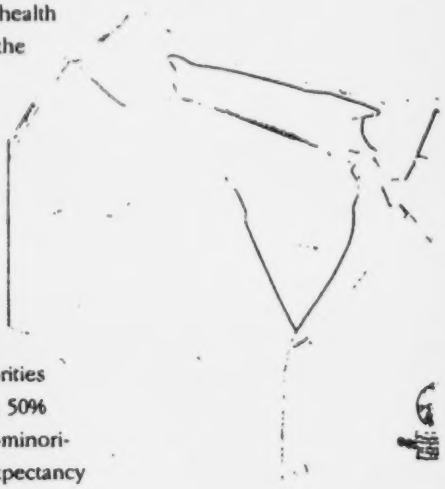
Financial Aid

Financing an education is no longer the insurmountable obstacle it once was. Today, there are many ways to go about it, including scholarships, loans and grants, available from federal, state and local governments, as well as private sector organizations. This information is included in the packet.

Fulfilling a Need

Only 10% of the health care workforce is comprised of minorities. The U.S. population, on the other hand, is 25% minority and expected to grow to 30% by 2010. None of the health professions can boast of African American, Hispanic, or American Indian enrollments that come close to matching their percentages in the total population, much less the projected increase. In fact, enrollments are dropping. With the 1996 elimination of affirmative action in public post-secondary and graduate schools in California, Louisiana, Mississippi and Texas, the number of underrepresented minorities applying to medical schools in those states fell precipitously, according to data from the Association of American Medical Colleges. Over the past two years, the number of minorities applying to medical schools dropped 19% in California, and 22% in Texas, Louisiana and Mississippi, while minority applicants nationally dropped by 12% in the same period.

These enrollments matter because minority health care professionals provide more care for the poor and uninsured and for patients in their own racial/ethnic groups than non minority providers. Thus, minority representation within the health professions directly relates to access to health care services in underserved communities. It also relates to quality of health care. According to the Association of American Medical Colleges, the quality of care given to underserved minorities is "inferior" to that available to the general population. Annual death rates for minorities in general are about 50% higher than for non-minorities, lowering life expectancy



by about five years for minority women and eight years for minority men.

Declining minority enrollments in health care training and the consequent health threat to the nation's disadvantaged and minorities prompted HRSA and BHPr, not only to establish the Kids into Health Careers Initiative as a way of exposing underrepresented minority youth to health career opportunities, but also to call upon grantees as Kids into Health Careers ambassadors.

Your Role

Often the only experience young people have with health professionals is a negative one, the result of being sick. If the health care workforce is to grow, young people must have greater and more positive exposure to health professionals. That is where you come in. By visiting your chosen school or community based organization and sharing health career opportunities with the young people there, you will be letting them into a world of opportunity, expanding their personal horizons and exposing them in a positive way to a health care professional...you. As a health care professional role model, you make an important difference in a child's life and at the same time contribute to the future of U.S. health care.

Selection Criteria

The appropriate schools and/or community based entities for Kids into Health Careers presentations must have populations with a high percentage (refer to national rankings) of economically disadvantaged, educationally disadvantaged or underrepresented minority students. These terms are defined as follows:

Student eligibility - must be a citizen of the United States or its territories and a permanent resident.

Economically disadvantaged - limited financial means based on low income. Local standards for low income should apply.

Educationally disadvantaged - an educational background that has identifiable weaknesses at any level and inadequate preparation in prerequisite math and science courses.

Underrepresented minority - from racial and ethnic populations that are underrepresented in the health professions relative to their percentage of the general population.

Once a selection(s) has been made, you will be expected to contact school/entity administrators to set up meetings with officials, guidance counselors and teachers, with students in grades 6-12 or K-5 and with parents.

Addressing Target Audiences

A separate sample presentation has been prepared for each of the Kids

into Health Careers targeted groups, but each has the same aim - to impress on educators, students in grades 6-12 and K-5, and their families that health care jobs are available and attainable.

Each presentation includes talking points and visual aids.

Sample Presentation to Teachers, Counselors and/or School Administrators

The thrust of this presentation is to inform school personnel that the health care field provides enormous opportunity for their students, that:
A whole range of health care careers exist,
Opportunities in the field are only going to grow in the future, and
Qualifying for health care jobs doesn't necessarily require a post graduate degree but can be as easy as an apprenticeship or training program.
In addition, this presentation provides information about health care education programs and about financing for them so that busy teachers and guidance counselors can easily make it accessible to their students.

Sample Presentation to 6-12 and K- 5 Students

Students pay closer attention and learn more when they are engaged. For that reason, both of the student presentations provide opportunities for give and take. The presentation to older students includes information about various health profession jobs, what is required to qualify for them and methods of paying for a health care education.
The presentation to K-5 students is more modest, aiming to spark the imaginations of the student audience with the possibilities of a future in health care.

Sample Presentation to Parents

This presentation is very similar to the student 6-12 presentation, providing parents with an understanding of the opportunity in health care, what it takes to qualify and how to finance a health care education. In the event of a mixed parent/student audience, the student presentation could be used without omitting any information.

Presentation Materials

Included in this packet you will find examples of health professions, which can be made into transparencies to be used with each of the presentations, a CD-ROM detailing health careers that can be left with the school and four collections of reference material (Appendices A-D). These can be added to with local information and may be copied for use as handouts.

Appendix A, Health Professions Reference Material: This is a list of references detailing career opportunities in the health field.

Appendix B, Examples of Health Professions: Additional information on specific health careers and certificate positions are described in the presentations to school personnel, students and parents is included here.

Appendix C, Financial Aid information: Places that offer financial assistance and ways to get in touch with them are listed in this section. Local financial aid programs could be added.

Appendix D, Federally Funded Health Facilities: These facilities may be sources for additional information, or, if there is one near you, could be an opportunity for a tour or field trip. This list could also be passed on to interested teachers or guidance counselors.

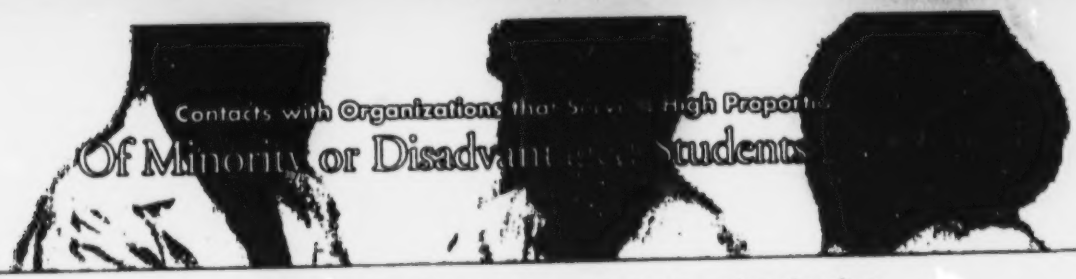
Reporting Elements

In order to evaluate the effectiveness of this initiative and to monitor its progress, you will be asked to submit periodic reports. By filling out the report form on the following page, you will help keep track of:

A. Number of visits (six (6) suggested per fiscal year)

B. Number of contacts - numbers of students, parents and/or teachers, counselors and school administrators seen. At least two (2) of the three (3) target groups (students, parents, and guidance counselors) must be seen and one (1) target group must be students.

Your reports will be used to create a database.



Contacts with Organizations that Serve a High Proportion Of Minority or Disadvantaged Students

Please report the number of visits (6 suggested) and the number of students, parents and teachers/counselors/administrators contacted.

# of Visits	# Students	# Parents	# Teachers, Counselors and /or Administrators

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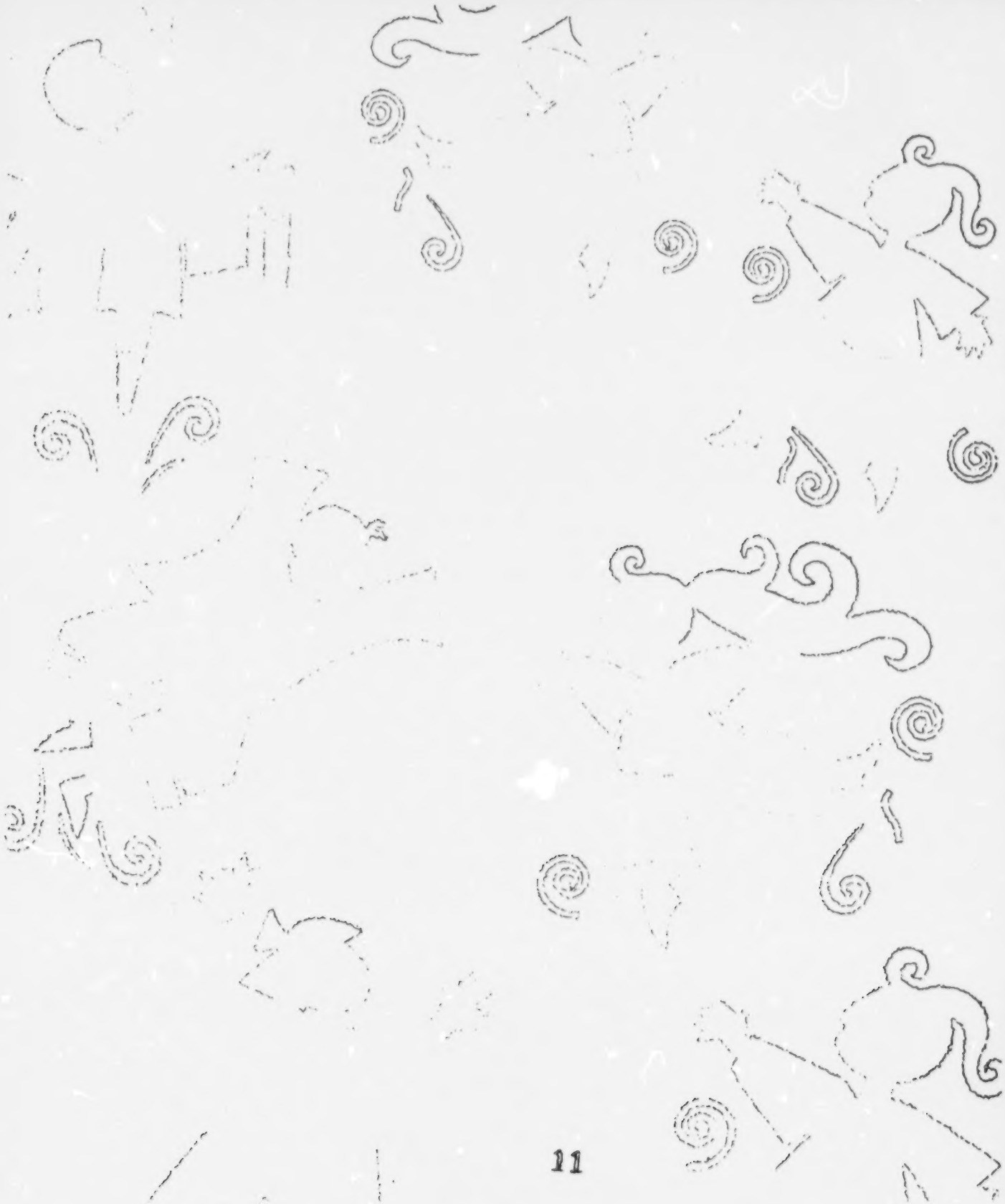

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Glossary

AAPI	Asian American Pacific Islanders
ACT	American College Test
AHEC	Area Health Education Centers
BHPr	Bureau of Health Professions
BPHC	Bureau of Primary Health Care
CHC	Community Health Centers
COE	Centers of Excellence
DHHS	U.S. Department of Health and Human Services
FY	Fiscal Year
HCOP	Health Career Opportunity Program
HHS	U.S. Department of Health and Human Services
HMO	Health Maintenance Organization
HRSA	Health Resources and Services Administration
K	Kindergarten
KIHC	Kids Into Health Careers
MHC	Migrant Health Centers
MHP	Migrant Health Program
MUC	Medically Underserved Community
NSL	Nursing Student Loans
OEO	Economic Opportunity Act
PHS	Public Health Service
SAT	Scholastic Aptitude Test
SDS	Scholarships for Disadvantaged Students
URM	Underrepresented Minority
WIC	Women, Infant and Children

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Completion of the project would not have been possible and
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Vincent C. Rogers, DDS, MPH, – For Promoting the Ide
E.J.Dickerson and Cathy Brown – For their Artistic Cogniz

Information for the
Kids Into Health Careers Kit was Compiled by
Anthony Hollins, Jr.
Maurice Davis
Dr. Sandra L. Harris

Thank You One and All

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An Approach for the 21st Century

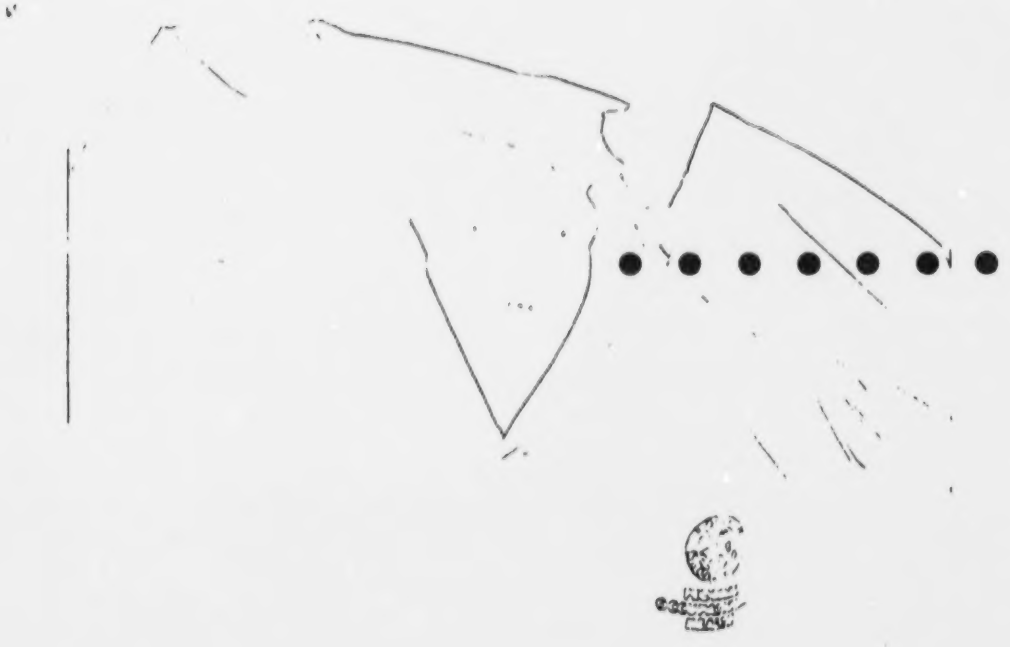
kids into health careers

KIHC is a Bureau of Health Professions (BHPr) initiative being developed without additional funding to supplement the pool of qualified applicants from economically and educationally disadvantaged and underrepresented minority populations for entry into health professions training.

NEWS FLASH . . .

kids into health careers

Why is this so **Important**



The Market Fails to . . .

44.3 Million Uninsured Americans: 1 in 6 lack access to health care ...

Distribute health care workers where they are needed most

Provide adequate workforce information and analysis

Reduce the number of underserved areas

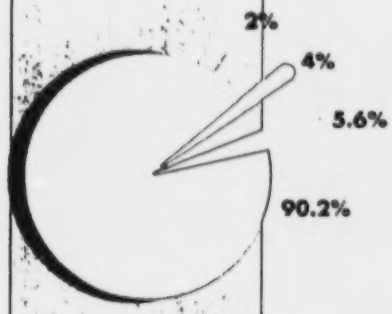
Improve workforce diversity

Support public health training in general for the changing demographics

Promote oral health, mental health, behavioral health and dental public health

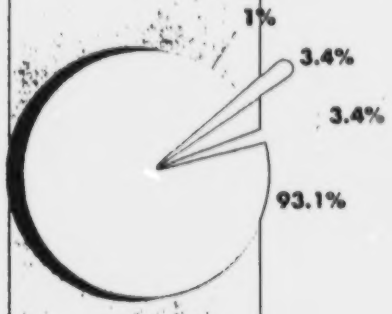
Ensure adequate access to quality care

Physicians by Race and Ethnicity



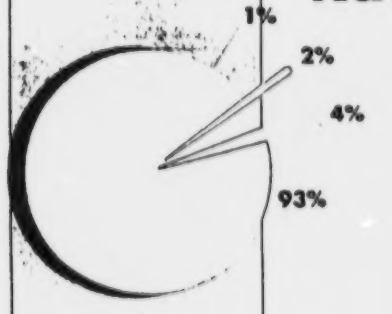
Less than 10% of physicians are American Indian, African American or Hispanic

Dentists by Race and Ethnicity



Less than 7% of Dentists are African American, Hispanic or ameri-can Indian

Nurses by Race and Ethnicity



Less than 10% of Registered Nurses are African American, Hispanic or American Indian

- African American
- American Indian
- Hispanic
- Non-Minority

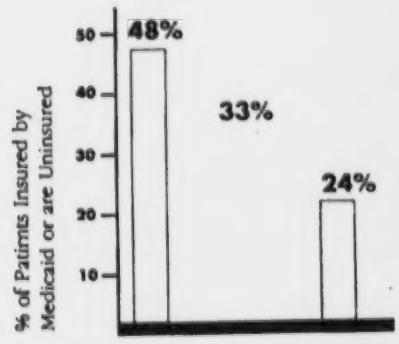
Source: U.S. Bureau of the Census, 1990 data projected to 1997 by the National Center for health Workforce Information and Analysis, BHPr, HRSA.

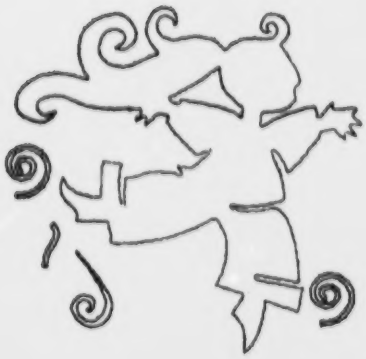
* AAPI data not available.

URM Physicians are far more likely to treat medicaid or Uninsured patients

African American and Hispanic physicians are far more likely (1.5 to 2 times) to treat Medicaid or uninsured patients than white physicians from the same area.

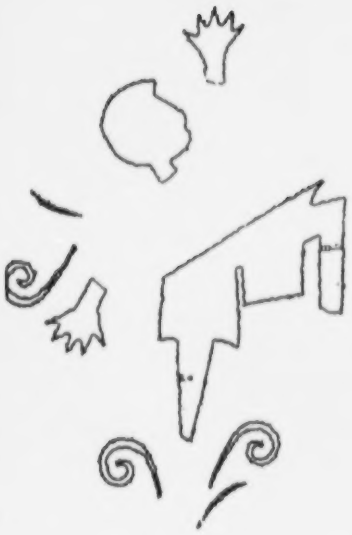
Nearly half of the [illegible] patients seen by African American physicians and one third of patients seen by Hispanic Physicians are medicaid and uninsured patients.





Source:
Komaromu, et al., New England Journal of Medicine: May 16, 1996.

Note:
Data on American Indians/Alaskan Natives are insufficient to calculate reliable estimates.



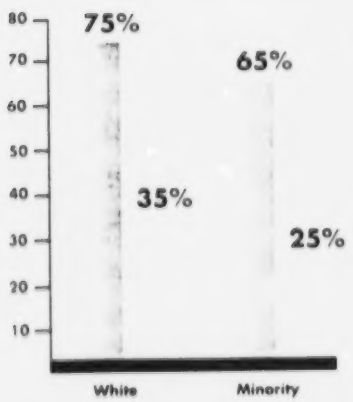
Racial and Ethnic Minorities are more likely than Non-Minorities to Live in Medically Underserved Communities

Racial and ethnic minorities are more likely to live in medically underserved communities (MUCs) than whites.

Almost two-thirds of the users of Community and Migrant Health Centers – facilities designed to deliver services to underserved individuals and families – are racial and ethnic minorities.

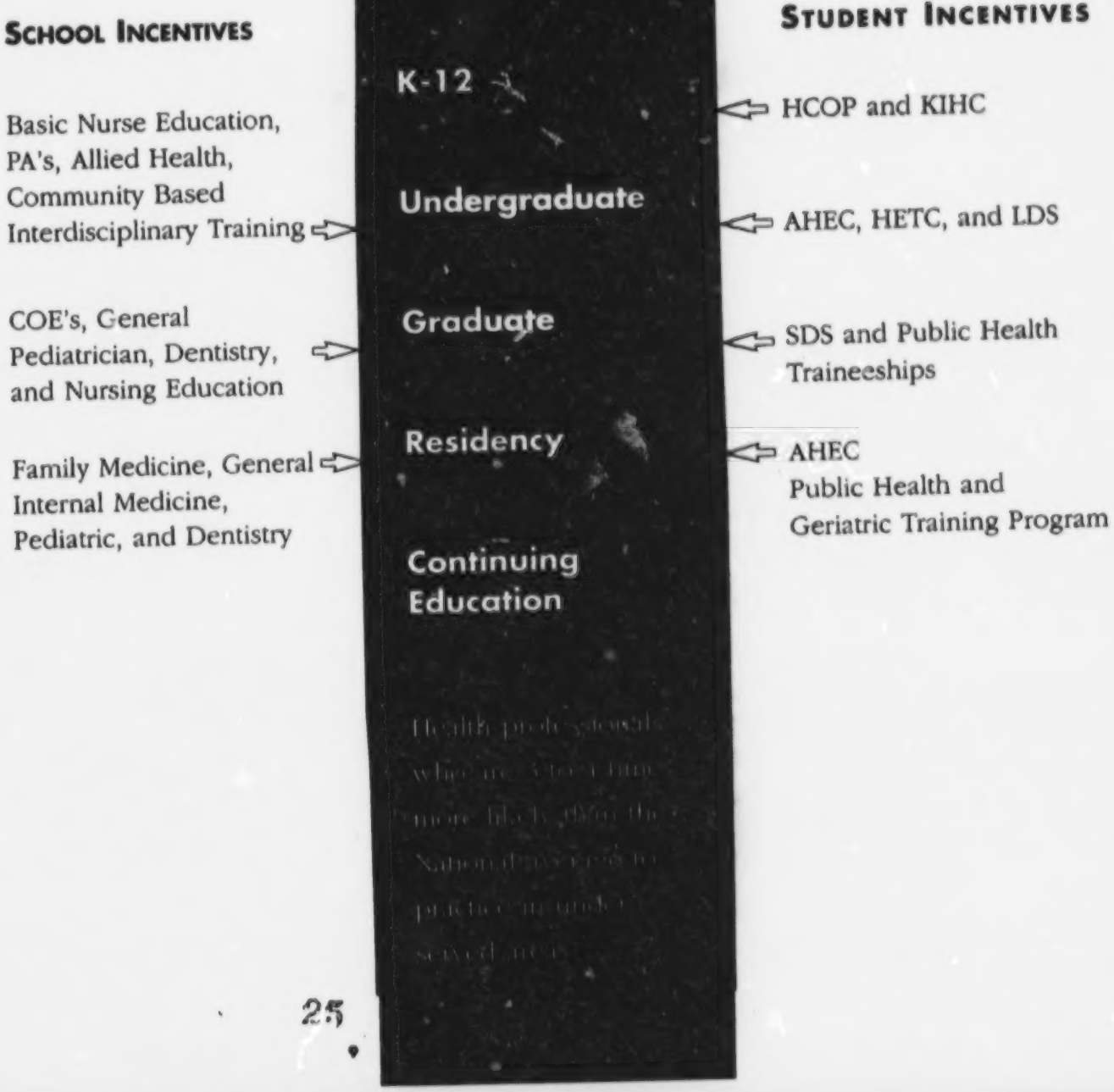
The racial and ethnic minority representation in underserved areas is nearly 3 times their actual proportion in the U.S. population.

Racial and Ethnic Distribution in MUCs Compared to the General Population: 1997



Source: Health Resources and Services Administration (HRSA), Bureau of Primary Health Uniform Data System, 1997.

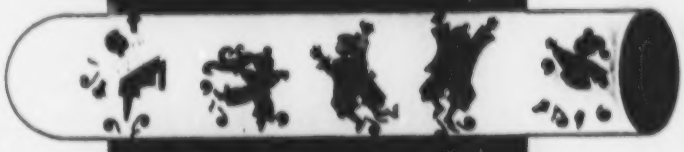
How do BHPr Training Programs Increase Access to the Underserved?



Preparing for and succeeding in Health Professions Training . . .

Where Does it Begin?

Kids into Health Careers Initiative targets younger students. Early intervention helps increase the competitive URM applicant pool.



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What are the goals of Kids into Health Careers?

Inform students and parents about careers in the health professions.

Create optimism about the value, reward, and accessability of health professions careers.

Provide facts about the availability of financial aid for health professions training.

Increase awareness about the need for underrepresented minorities in the health professions.

Improve overall access to health for underrepresented minority and disadvantaged populations by increasing the number of applicant pool for health professions training.

Who is this initiative trying to reach?

Students

Parents

Guidance Counselors

Teachers and administrators

Other Professional organizations

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Opportunities for HHS Components Participation

Secretary and Surgeon General support of KHC initiative and involvement in launch as spokespersons

HHS components involvement with dissemination of materials and messages through grantees, constituencies and other multiplier groups

Identification of contacts to participate with HRSA on an HHS KHC Coordinating Committee

Integrate KHC as fiscal year 2000 objective and into operational Plan

Provide experience and other support for kids who might pursue one of the 21st health professions

Include KHC in all HHS components summit efforts, conferences and workshops

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HRSA

For more Information on Kids into Health Careers . . .

Contact your Project Officer
or Bureau of Health Professions at
301.443.0734

or go to

www.hrsa.gov/bhpr/kidscareers

Be A Health Professional

Yes, You Can!

Kids Into Health Careers—What is it?

- Kids Into Health Careers (KIHC) is a Department of Health and Human Service supported Bureau of Health Professions (BHPr) initiative to increase the pool of qualified applicants from economically and educationally disadvantaged and underrepresented minority populations for entry into health professions training

- KIHC targets students, parents, guidance counselors, teachers and school administrators now in an effort to:
  1. Inform students, parents, guidance counselors, teachers and school administrators about the hundreds of careers in the health professions.
  2. Create optimism about the value, rewards and accessibility of health professions careers.
  3. Provide facts about the availability of financial aid for health professions training.
  4. Increase the awareness about the need for underrepresented minorities in the health professions.
  5. Improve overall access to health care for underrepresented minority and disadvantaged populations by increasing the minority applicant pool for health professions training.

WHY IS THIS SO IMPORTANT?

- Current statistics show that underrepresented minorities make up approximately one quarter of the U.S. population, but represent less than 10% of the health profession workforce.
- The U.S. Census Bureau estimates that nearly one-third of the population will be comprised of underrepresented minorities by 2010. However, minority student enrollment trends do not reflect this increase.
- None of the health professions can boast of African American, Hispanic, American Indian, or Asian American Pacific Islanders enrollments that come close to parity with their numbers in the total U.S. population.
  - The lack of minority representation within the health professions is directly related to both access to health care services and the quality of services, provided to these populations.
  - There are simply not enough qualified disadvantaged and underrepresented minority applicants for health professions training programs to create a workforce, which reflects the diversity of the U.S. population.

Who is KIHC Trying to Reach?

The target audience includes students from pre-elementary through high school (K-12), parents, teachers, counselors and school administrators. The principal theme is, "Yes, You Can."

"Yes, You Can!"

KIDS

- As kids, most of us only relate to health professionals based upon negative personal encounters. We got sick or injured. This has to change if we are going to increase the pool of qualified applicants.
- Young people must have greater positive exposure to the health professions and the associated health career opportunities. They must be given the opportunity to see who they are, what they do and how their efforts affect the health and well being of their community and the Nation.

PARENTS

- Parents must become informed about the health professions and associated health career opportunities.
- Parents must encourage their children to want to be health care professionals.
- Parents must prepare for the financial obligation associated with health professions training and how to secure the finances for their children.

SCHOOL PERSONNEL

- Guidance counselors, teachers and school administrators must enhance their awareness of the career opportunities in the health professions.
- Guidance counselors, teachers and school administrators must encourage their students to want to be health professionals.

There are over 250 different career opportunities in the health professions. Financing such a career is no longer the insurmountable obstacle it once was. Today there are scholarships, loans, grants, etc., available from Federal, state and local governments, as well as private sector organizations. **The key is information!**

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Why Should I be a Health Professional?

You can get a job.

You will have marketable skills.

You will have advancement potential.

You will be able to support yourself and family.

You will make a difference in the health care industry.

You will have the respect of your peers.

EXAMPLES OF CAREER OPPORTUNITIES IN THE HEALTH PROFESSIONS:

Listed above are examples of careers in the health professions that required community or junior college training or less. In many cases, a certificate of completion or On-the-Job training is all that is required.

- Medical Records Technician
- Cardiovascular Technologist
- Dental Assistant
- Diagnostic Medical Sonographer
- Dispensing Optician
- Emergency Medical Technician
- Histologic Technician
- Dietetic Technician
- Homemaker-Home Health Aide
- Human Service Worker
- Massage Therapist
- Surgical Technologist
- Medical Assistant
- Medical Secretary
- Nuclear Medicine Technologist
- Nursing Assistant
- Ophthalmic Medical Personnel
- Paraoptometrists
- Phlebotomist
- Psychiatric Mental Health Technician
- Radiation Therapy Technician
- Biophotographer
- Radiologic Technologist
- Environmental Health Technician

Reference Guides

There are several reference guides that provide information about health professions and how to pay for them. This list is a sample list of the resources that are available in any public library. For a complete list of references contact your public library (search under "health occupations or health professions) or contact any health facility.

1. 120 Careers in the Health Care Field
   by Stanley Aperin, Editor
   Ballinger Publishing Company

2. 150 Careers in the Health Care Field
   US Directory Service
   121 Chanlon Road
   New Providence, NJ 07974

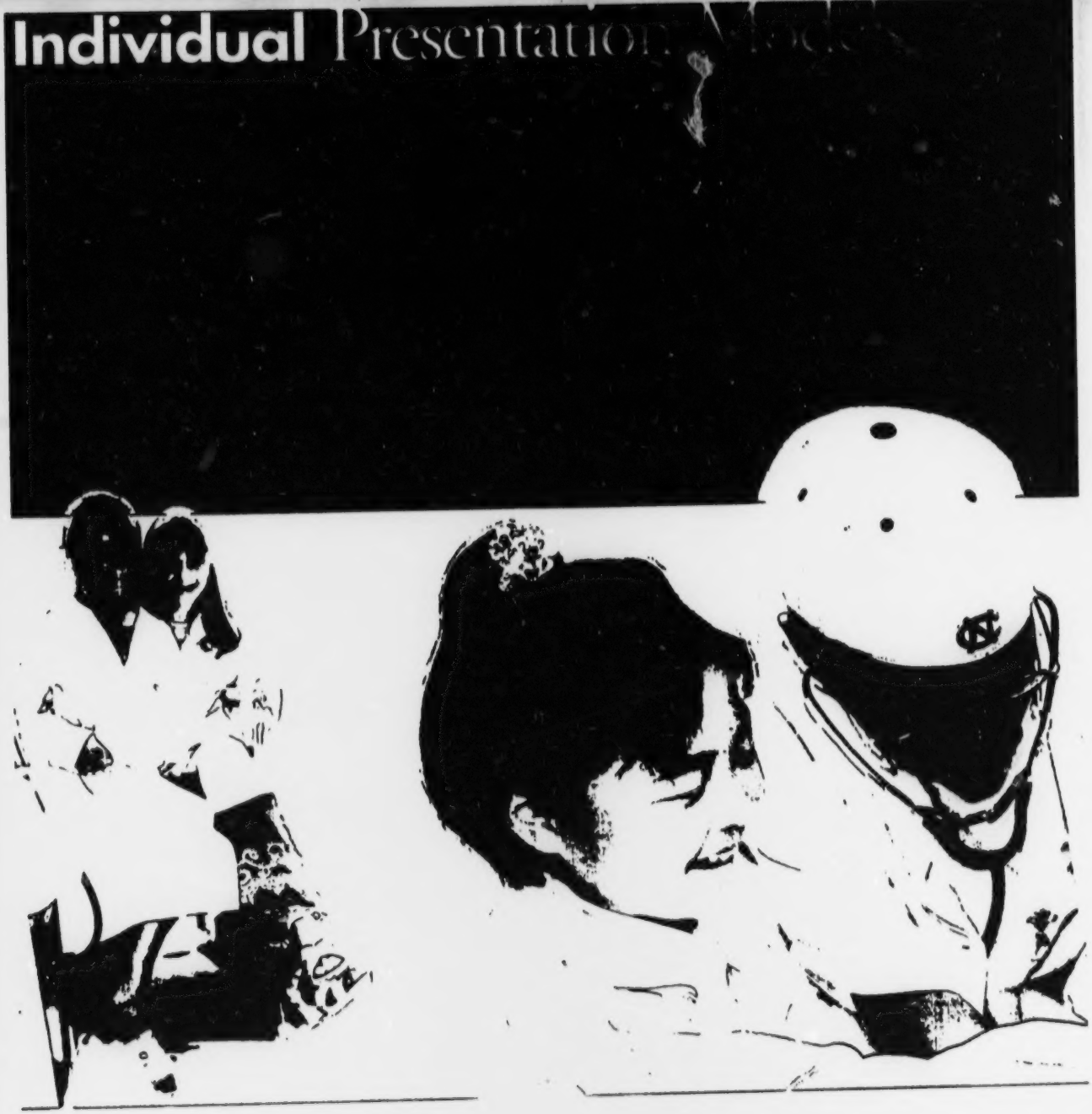
3. Occupational Outlook Handbook,
   2000-01 Edition
   US Department of Labor
   Bureau of Labor Statistics
   ISBN: 1563706768
   312-353-1800
   www.bls.gov

4. 270 Ways to Put your Talents to Work
   in the Health Field
   National Health Council
   1730 M Street, Suite 500
   Washington, DC 20036
   202-785-3910
   www.nhcouncil.org

5. Need A Lift?
   Financial Aid Handbook
   Published by American Legion
   www.legion.org/educasst.html

6. Financial Aid Info Page
   FinAid Page, LLC
   P.O. Box 81620
   Pittsburgh, PA 15217
   www.finaid.org

Individual Presentation



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kids into health careers

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A. How many of you had to go to a physician before you came to school this fall? How many of you had to get shots? Who gave you the shots? What was that like?

B. Have any of you guys ever thought about being a physician or a nurse when you grow up? How about a dentist? Why? What do you like about the idea of being one of those three things?

C. Physicians, nurses and dentists...those are three different jobs you can have when you grow up. What do they have in common? What's alike about those three jobs?

They are all in the health care field; all those people take care of your body. They make sure it's healthy so that when you come to school you can be all you can be.

What if I told you that those three - physicians, nurses and dentists - are not the only ones who take care of people's bodies? What if I told you that there are 250 different kinds of health care workers? So, if you didn't want to be a physician or a nurse or a dentist, you could be an athletic trainer. Anybody know what that is?

Athletic trainers take care of the human body by helping athletes - basketball, football and soccer players, for example - get themselves back in shape after they've hurt themselves.

Another health care job you could have would be a radiologic technician. I don't suppose anybody knows what that is? Has anybody here ever broken a bone? Did you have to have an X-ray? Well, the chances are the person who gave you the X-ray was a radiologic technician. An X-ray is a picture of your bone, taken with a special machine that sees through the skin.

Let's talk about some other health care jobs you might want to have some day:

1. **Physician Assistants** help out physicians by checking out patients, figuring out what's wrong with them and deciding how to make them better.

2. **Pharmacy Technicians** work with pharmacists. Does anybody know what a pharmacist is? If you get a prescription you take it to a pharmacist. A prescription is physician's order for medicine and the pharmacist is the person who gets that medicine together for you so you can take it and get well.

3. **Radiologic Technologists** take pictures of a part of the body for the purpose of making a diagnosis that is, figuring out what the patient's problem is.

4. **Respiratory Therapists** (does anybody know what respiratory means? It means having to do with breathing.) Respiratory therapists help patients with breathing problems, like asthma. Does anybody here have asthma?

5. **Athletic Trainers** take care of athletes, like basketball players, who have hurt themselves.

6. **Physical Therapists** work with people who have been disabled by illness or accident. Does anybody know what disabled means? It means having a part of the body, like an arm or a leg that doesn't work the way it should. Physical therapists use exercise, massage and other things to help their patients feel better.

7. **Occupational Therapy Assistants** teach disabled patients how to get around.

8. **Dispensing Opticians**...who here has been to see one of these folks? They make and fit eyeglasses and lenses.

9. **Surgical Technologists** prepare operating rooms for surgery, help out during operations and take care of patients after their operations.

10. **Emergency Medical Technicians** are the guys who come when you dial 911. They perform basic life support skills, such as restoring breathing, controlling blood loss and treating shock victims.

11. **Certified Nurse-Midwives** are registered nurses with more training that allows them to care for mothers-to-be, deliver babies and take care of both mother and baby afterwards.

12. **Genetic Counselors** are people who provide family members with information about the make up of their bodies body such as eye color, hair color, or family related illnesses.

13. **Public Health Professionals** identify specific health problems in the community and come up with answers.
[See Appendix B for more information on these jobs]

Let me tell you about some of the health care jobs I know about:

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D. Why do you think it might be a good idea to have one of these jobs? What do they do for you?

1. **Earn a living and support yourself and family.** Not only do you get to do cool things as a health care worker but also you get paid for it and when you grow up and have a family, paychecks are pretty important.

2. **Have a job that is stable and secure and skills that are in high demand.** When you grow up there are going to be a lot of health care jobs for people to fill so you won't have trouble finding one for you.

3. **Make a difference.** If you become a health care worker, you will be helping out other people, as well as yourself:

   a) **Taking care of people who need it.** Making somebody feel better will make you feel better.

   b) **Providing health care to people who don't have it.** At the moment many people in this country have no one to take care of them when they get sick. Maybe you could be the one to help some of them out.

   c) **Helping improve the standard of health care.** What this means is that by getting into health care and being good at it, you can make health overall better for patients.

Here's what I think is great about being a health care provider...

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E. What do you have to do to get a health care job?

You'll want to work as hard as you can in school and when you get to high school, take as many science and math courses as you can. One thing you have to do is graduate from high school and get a high school diploma.

F. Did any of you like one of the health care careers I talked about? What did you like about it?

Well, I hope something I have said here today will at least make you think about it. The truth is, we need you in health care. If you decide to be an optician (do you remember what that is) or a nurse midwife or physical therapist, you will be helping a lot of people and, at the same time, you will be helping yourself with the kind of career that will make people in your community look up to you.

A. Why am I here?

I am here to tell you that there are lots of job opportunities in the health care field, and that there are going to be even more jobs in the future. For instance, in the state of California 43,000 new nurses are going to be needed in the next ten years, 74,000 in the next 20. That's a whole lot of new jobs and California is only one state out of 50.

Here, in this area, we're going to need....

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B. What are the Health Professions?

When I talk about health care careers, you are probably thinking physicians, dentists and nurses. But those are only three of over 250 different health care professions. Health care professions are jobs that maintain the health and condition of the human body. For instance, did you know that an athletic trainer is a health profession? That's because athletic trainers get athletes in shape after they've injured themselves. Nurse midwives are also health professionals. Can anybody tell me why?

That's right. Nurse midwives deliver babies. They look after the health of the baby and the mother.

So, we're talking about 250 different kinds of jobs, something to appeal to every kind of kid, no matter how smart you are, no matter what your interests are. Some of these jobs, like being a physician, require a lot of schooling, others can be had with a two-year associate's degree or even less time spent in a certificate training program. What this says is that every one of you can qualify for a health profession.

Something else that's important to note is you're not stuck with the first health care job you choose. You can always go back to get more education and move up in the health care field. So, if you start out as a physician assistant or a pharmacy technician, there's nothing to stop you from going back to school and becoming a physician or a pharmacist.

Let's look at some examples of non-traditional health professions:

1. **Physician Assistants** perform physical examinations, diagnose illness, recommend treatment and order laboratory tests under the supervision of a physician. Physician assistants attend an accredited Physician Assistant program, usually after going to college. The median salary for a physician assistant is $47,000 a year. (Median, by the way, means in the middle so that some physician assistants are making more than that and some are making less but $47,000 is right in the middle.)

2. **Pharmacy Technicians** are support personnel in pharmacies. They attend community colleges or vocation-technical schools where they earn associate's degrees. Pharmacy technicians make between eight and nine dollars an hour.

3. **Radiologic Technologists** use radiation for diagnostic imaging. (Can anybody tell me what that is? Right, its like X-rays. Diagnostic imaging is taking pictures of a part of the body for the purpose of making a diagnosis that is, figuring out what the patient's problem is.) There are programs for radiology at the cer-

tificate, associate's and bachelor's degree levels. The median salary for radiologic technologists is almost $33,000 a year.

4. **Respiratory Therapists** (does anybody know what respiratory means? Yes, it means having to do with breathing.) Respiratory therapists work with physicians to treat and care for patients with breathing problems, such as asthma or emphysema. They must complete a formal training program, which can be a four-year bachelor's degree or two-year associate's degree. The median salary for respiratory therapists is almost $35,000 a year

5. **Athletic Trainers** prevent, care for and rehabilitate athletic injuries as directed by a physician. A certified athletic trainer must graduate from an accredited program, fulfill an internship and pass a certification exam. This is a growing field offering a range of salaries.

6. **Physical Therapists** work with people who have been disabled by illness or accident. Treatment may include exercise, massage, the application of heat and other techniques. There are both four-year college and graduate degrees for physical therapists who earn a median $10.69 an hour.

7. **Occupational Therapy Assistants** teach disabled patients how to get around, perform strengthening or muscle toning exercises with patients and work with them in other ways. An associate's degree from an accredited training program is required for these jobs, which pay $27,500 a year.

8. Who knows this one? **Dispensing Opticians**? Yes, they make and fit eyeglasses and lenses. Opticians can be trained on the job, either informally or as part of an apprenticeship program. Salaries range from $14,400 to $37,000 a year.

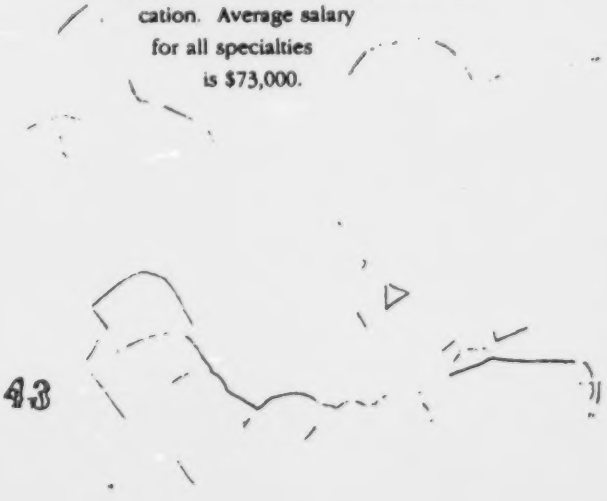
9. **Surgical Technologists** prepare operating rooms for surgery, assist during operations and carry out post-operative procedures. Training programs vary from nine to 24 months. Salaries range from $19,000 to $35,000 a year.

10. **Emergency Medical Technicians** are the guys who come when you dial 911. They perform basic life support skills, such as restoring breathing, controlling blood loss and treating shock victims. This job requires some 120 hours of classroom exercises and ten internship hours. The median salary for EMTs is a little over $20,000 a year.

11. **Certified Nurse-Midwives** are registered nurses with advanced training that allows them to care for expectant mothers, deliver babies and care for both mother and baby afterwards. To be nurse-midwives registered nurses must enroll in a one-year certification program. While nurses earn about $36,000 a year, nurse-midwives usually make $70,000.

12. **Genetic Counselors** provide information support to people with Birth defects or genetic disorders, or those who may be at risk for a variety of inherited conditions. A master's degree is required and the course work includes medical genetics, counseling and hands-on experience in the field. The salary ranges from $28,000 at entry level position to $53,000 for an experienced counselor.

13. **Public Health Professionals** identify those at risk from a specified health problem. They also implement and evaluate interventions to prevent such health problems. Many colleges and universities award a bachelor's degree in public health; most advanced positions require a master's degree. Public health professionals' salaries vary by specialty, experience, geographic location and level of education. Average salary for all specialties is $73,000.



[See Appendix B for more information on these jobs]

These are only a few of the health care professions available. For instance, let me give you short list of just some of the health care jobs that can be had with only a **certificate or on-the-job training:** Cardiovascular Technologist, Dental Assistant, Histotechnologist, Human Service Worker, Massage Therapist, Nuclear Medicine Technologist, Phlebotomist and Psychiatric Mental Health Technician.

Some other examples I can think of are:

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If you are interested in learning more about health care professions, check with your guidance counselor or look in the reference section of your library under Health Professions Occupations. *(See Appendix A)*

C. Who hires all these health professionals? Where do they work? Can anybody tell me some places that hire health care workers?

Health care professionals are in demand in a lot of places, including:

- Hospitals, clinics, nursing homes, mental health facilities, etc.
- Managed Care Organizations
- Federal, State and Local Government Agencies
- Colleges and Universities
- Public/Private Research Organizations
- Medical supplies, equipment, and pharmaceutical industries
- Private practice

Locally, health professionals work at...

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What all of these adds up to is opportunity. If all of these places need health care professionals to staff them, that's a lot of health care jobs and also, a lot of choice in where you work and the kind of environment you choose to spend your time in. Some of you may like a little action, a more pressured, exciting work atmosphere; others may prefer something a little more laid back. In the health care professions you get to choose.

D. Why be a health care professional/ What's in it for you? The answer is, a lot. You will:

1. **Earn a living and support yourself and family.** Health care jobs pay well and those paychecks come regularly, every week or two weeks.

2. **Have a job that is stable and secure.** The health care profession is here to stay and if you're not satisfied with the health care job you choose, you can always build on it with additional training and move up to a job that suits you better.

3. **Attain skills that are in high demand.** There are only going to be more health care jobs in the future and they're everywhere, so if you have to pick up and move, you can be pretty sure of finding a health care job on the other end.

4. **Make a difference.** There is a critical need for health care workers in this country. You would be making a contribution on three important levels:

   a) **Providing health care to people who need it.** There is tremendous satisfaction in making somebody feel better. As a health care professional you would do that every day.

   b) **Providing better access to health care in the community.** At the moment many people in this country have no health care services whatsoever. Maybe you could be the one to do something about that situation in your community.

c) **Helping improve the standard of health care in medically underserved and underrepresented communities.** If you do choose to provide health care in your own community, you would be helping to raise the standard, to make health care better for the people who live there.

Other reasons I can think of for choosing a health care career include...

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E. What are the academic requirements and how can you meet them?

To become a health professional, first and foremost you must complete your high school education, earning either a diploma or GED. You must also have national test scores that are acceptable to whatever program you want to get into whether it's a four year college, junior college, vocational school or a training program. National tests include SAT (Scholastic Aptitude Test), ACT (American College Test) and Miller's Analogy.

Right now the most important thing you can do is to take as many math and science classes as you can, including biology, chemistry, general math, algebra, geometry, business math, statistics etc. The better you do in these courses, the more opportunity you will have to get into health care training programs.

Other things I suggest you do to prepare for a career in the health professions...

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F. Where can you get additional information about health care careers?

(See Appendix A)

You might talk to the following people if you are interested in choosing a health profession as a career:

- Guidance Counselors
- Teachers
- Parents
- Personal Role Models and mentors
- Health Professionals (your physician, dentist, school nurse, etc.)

Sources of information I suggest are:

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G. How can I afford health professions training?

The cost of training is going to vary depending on the profession you choose. But there are many ways to pay for an education, including scholarships, loans and grants. The key is to find the right program for you and to do everything they tell you to do to apply for their financial assistance.

Sources for financial aid include federal, state and local government financial aid programs. In the private sector you might be able to get education money from:

- Companies, including businesses in your neighborhood;
- Hospitals, clinics and other health care facilities;
- Medical supply, equipment and pharmaceutical companies;
- Community based organizations like your church;
- Social groups such as sororities and fraternities;
- National Organizations (4H Club, YMCA, YWCA, Boys and Girls Clubs); and
- Financial institutions (banks, savings and loans).

I have a list of places that offer educational financing and how to contact them which I would like to give you [*Appendix C*]. This list has also been made available to your guidance counselor.

Locally, you may want to check out...

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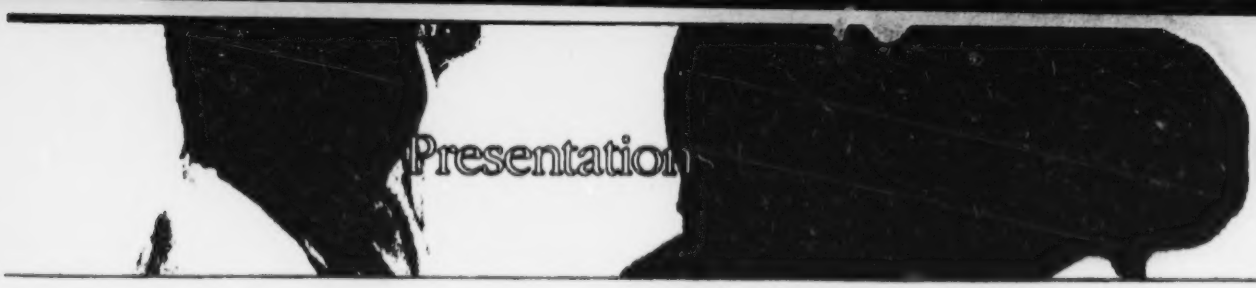
H. What are some of the benefits?

I hope something I have said will lead you to consider a career in health care. The truth is, you're needed out there. Today, already there are shortages in health care. Over 3,000 communities in this country - most of them minority or rural - do not have enough health care to meet the needs of the people who live there. Think about that, about how many people that is. If current trends continue, the situation will only get worse.

By getting yourself into a worthwhile, rewarding and respected career you are also helping your community and giving medical care to many people who simply don't have it now. This is a chance to do yourself a favor and a lot of other people as well.



A. Why am I here?

Has your son or daughter considered a career in the health care field? I am here to tell you that there are lots of health care jobs out there, and there are going to be even more in the future. For instance, in the state of California 43,000 new nurses are going to be needed in the next ten years; 74,000 in the next 20. That's a whole lot of new jobs and California is only one state out of 50.

Include local information:

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B. What are the Health Professions?

When I talk about health care careers, you are probably thinking physicians, dentists and nurses. But those are only three of 250 different health care professions. Health care professions are jobs that maintain the health and condition of the human body. For instance, did you know that an athletic trainer is a health profession? That's because athletic trainers get athletes in shape after they've injured themselves. Nurse midwives are also health professionals. Why? Because they deliver babies. They look after the health of the baby and the mother.

So, we're talking about 250 different kinds of jobs, something to appeal to every kind of kid, no matter how smart they are, no matter what their interests are. Some of these jobs, like being a physician, require a lot of schooling, others can be had with a two-year associate's degree or even less time spent in a certificate training program. What this says is that every kid can qualify for a health profession.

A kid can move up in the health care field too. He or she can start at one level and then use that experience to build on, get more training and get an even better job. So, if your child starts out as a physician assistant or a pharmacy technician, there's nothing to stop him or her from going back to school and becoming a physician or a pharmacist.

Let me show you some examples of non-traditional health professions:

1. **Physician Assistants** perform physical examinations, diagnose illness, recommend treatment and order laboratory tests under the supervision of a physician. Physician assistants attend an accredited Physician Assistant program, usually after going to college. The median salary, that is the salary that's right in the middle of the range, for a physician assistant is $47,000 a year.
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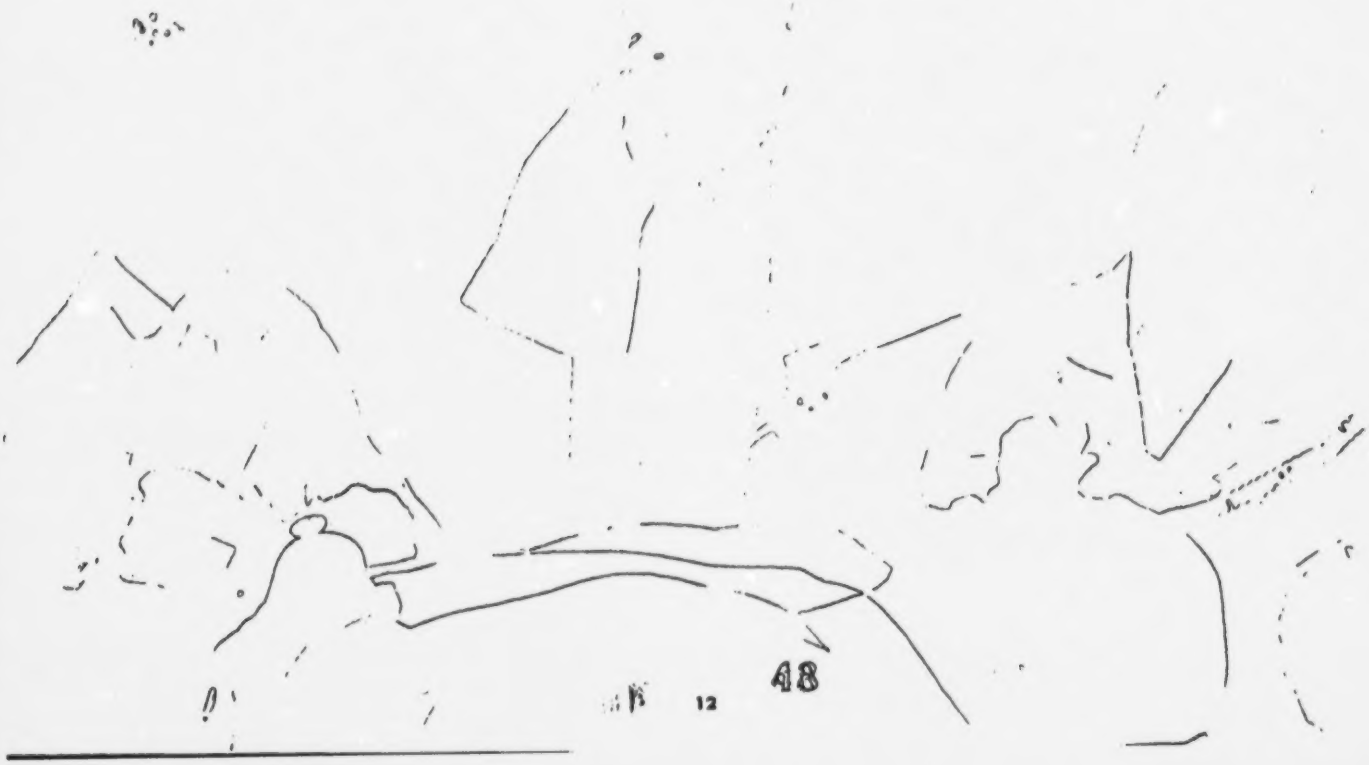

variety of inherited conditions. A master's degree is required and the course work includes medical genetics, counseling and hands-on experience in the field. The salary ranges from $28,000 for an entry level position to $53,000 for an experienced counselor.

13. **Public Health Professionals** identify those at risk from a specified health problem. They also implement and evaluate interventions to prevent such health problems. Many colleges and universities award a bachelor's degree in public health, most advanced positions require a master's degree. Public health professionals' salaries vary by specialty, experience, geographic location and level of education. Average salary for all specialties is $73,000.

[See Appendix B for more information on these jobs]

These are only a few of the health care professions available. For instance, let me give you short list of just some of the health care jobs that can be had with only a **certificate or on-the-job training:** Cardiovascular Technologist, Dental Assistant, Histotechnologist, Human Service Worker, Massage Therapist, Nuclear Medicine Technologist, Phlebotomist and Psychiatric Mental Health Technician.

Other health care careers I am familiar with include:

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If you are interested in learning more about health care professions, check with your school guidance counselor or look in the reference section of your library under Health Professions Occupations. *(See Appendix A)*

C. Who hires all these health professionals? Where do they work?

Health care professionals are in demand in a lot of places, including:

- Hospitals, clinics, nursing homes, mental health facilities, etc.
- Managed Care Organizations
- Federal, State and Local Government Agenci
- Colleges and Universities
- Public/Private Research Organizations
- Medical supplies, equipment, and pharmaceutical industries
- Private practice

Locally, health professionals work at...

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What all of these places adds up to is opportunity. If all of them need health care professionals to staff them, that's a lot of health care jobs and also, a lot of choice in where your daughter or son works and the kind of environment she or he works in. Some of you may have children who like a little action, a more pressured, exciting work atmosphere. Other kids may prefer something a little more laid back. In the health care professions they can choose.

D. Why be a health care professional? A lot of reasons:

- **Earn a good living and support a family.** Health care jobs pay well and those paychecks come regularly, every week or two weeks.
- **Have a job that is stable and secure.** These jobs aren't going to go away. The health care profession is here to stay and if your kids don't like the health care jobs they choose, they can always build on them with additional training and move up to something that suits them better.
- **Attain skills that are in high demand.** There are only going to be more health care jobs in the future and they're everywhere, so if your son or daughter has to pick up and move, you can be pretty sure, they will find a job on the other end.

- **Make a difference.** There is a critical need for health care workers in this country. Your child would be making a contribution on three important levels:

a) **Providing health care to people who need it.** There is tremendous satisfaction in making somebody feel better. As a health care professional your child would do that every day.

b) **Providing better access to health care in the community.** At the moment many people in this country have no health care services whatsoever. Your son or daughter could do something to improve that situation.

c) **Helping improve the standard of health care in medically underserved and underrepresented communities.** If your child does choose a health care career, she or he will be raising the standard, making health care, not only available, but also better.

Other reasons for choosing a health care career include...

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E. What are the academic requirements and how are they met?

To become a health professional, first and foremost your child must complete her or his high school education, this means getting either a diploma or GED. They must get national test scores that are acceptable to whatever program they want to get into whether it's a four year college, junior college, vocational school or a training program. National tests include SAT (Scholastic Aptitude Test), ACT (American College Test) and Miller's Analogy.

Right now the most important thing kids, who are interested in health careers, can do is to take as many math and science classes as they can, including biology, chemistry, general math, algebra, geometry, business math, statistics etc. The better they do in these courses, the more opportunity they will have to get into health care training programs.

Encourage your child to talk to teachers, guidance counselors, role models and community health care professionals about health careers and training programs.

Other things I suggest they do to prepare for a career in the health professions...

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F. How can I afford health professions training for my child?

The cost of training is going to vary depending on the profession your child chooses but the good news is, there is money out there. There are many ways to pay for an education, including scholarships, loans and grants. The key is to find the right program for your kid and do exactly what they tell you to do to apply for financial assistance.

Sources for financial aid include federal, state and local government financial aid programs. In the private sector you might be able to get education money from: **(see Appendix C)**

- Companies, including businesses in your neighborhood;
- Professional associations such as the Rotary Club;
- Hospitals, clinics and other health care facilities;
- Medical supply, equipment and pharmaceutical companies;
- Community based organizations like your church;
- Social groups such as sororities and fraternities;

- National Organizations (4H Club, YMCA, YWCA, Boys and Girls Clubs); and
- Financial institutions (banks, savings and loans and credit unions).

I have a list of places that offer educational financing and how to contact them which I would like to give you *[Appendix C]*. This list has also been made available to your school's guidance counselor.

Locally, you may want to check out...

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G. What are some of the benefits?

If your child has a leaning towards math or science, he or she can do a lot of good. The truth is, all of your kids are needed out there. There are shortages in health care today. Over 3,000 communities in this country - most of them minority or rural - do not have enough health care to meet the needs of the people who live there. Think about that, about how many people that is. If current trends continue, the situation will only get worse.

By encouraging your child to get into a worthwhile, rewarding and respected career, you are also helping your community and giving medical care to many people, who simply don't have it right now. You will be providing for the future of your child and grandchildren...and for the well being of many of your neighbors as well.

Presentation to Teachers, Counselors and School Administrators

A. Why am I here?

I am here to let you know that there are lots of job opportunities for your students in the health care field and that all of the trends - changes the way health care is delivered, the aging of the baby boomers, a growing minority population - point to even more job opportunities in the future. For example, in the state of California alone 43,000 new nurses are going to be needed by the year 2010 and 74,000 by 2020. That's a lot of jobs and I'm talking about only one, out of 50, states.

Include local information:

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B. What are the Health Professions?

When I talk about health care careers, you are probably thinking physicians, dentists and nurses. But those are only the big three of over 250 different health care professions, which are defined as careers requiring specialized skills and training for the purpose of maintaining the health and condition of the body.

Two hundred and fifty different kinds of jobs, that's something to appeal to all interests and abilities. Many of these jobs do not require graduate level degrees but can be performed with specialized training at the associate degree and/or certificate levels. What this says is that these jobs are attainable by a wide range of students.

Let's look at some examples of non-traditional health professions:

1. **Physician Assistants** perform physical examinations, diagnose illness, recommend treatment and order laboratory tests under the supervision of a physician. Physician assistants attend an accredited PA program often after attaining a bachelor's or master degree. The median salary for a physician assistant is $47,000 a year.

2. **Pharmacy Technicians** are support personnel in pharmacies. Most attend community colleges or vocation-technical schools where they earn associate's degrees. Pharmacy technicians make between eight and nine dollars an hour.

3. **Radiologic Technologists** use radiation for diagnostic imaging. There are programs for radiography, radiation therapy and diagnostic sonography at the certificate, associate's and bachelor's degree levels. The median salary for radiologic technologists is almost $33,000 a year.

4. **Respiratory Therapists** work with physicians to treat and care for patients with pulmonary disorders, such as asthma or emphysema. They must complete a formal training program that can be a four-year bachelor's degree or two-year associate's degree. The median salary for respiratory therapists is almost $35,000 a year.

5. **Athletic Trainers** prevent, care for and rehabilitate athletic injuries as recommended by a physician. A certified athletic trainer must graduate from an accredited program, fulfill an internship and pass a certification exam. This is a growing field offering a range of salaries.

6. **Physical Therapists** work with people who have been disabled by illness or accident. Treatment may include exercise, massage, the application of heat and other techniques. There are both undergraduate and graduate degrees for physical therapists who earn a median $10.69 an hour.

7. **Occupational Therapy Assistants** teach disabled patients how to get around with limited mobility, perform strengthening or muscle toning

exercises with patients and work with them in other ways to complete treatment regimens. An associate's degree from an accredited training program is required for these jobs which pay $27,500 a year.

8. **Dispensing Opticians** make and fit eyeglasses and lenses. Opticians can be trained on the job, either informally or in an apprenticeship program. As the population ages and requires more prescription eyewear, there will be more job opportunities for opticians. Salaries range from $14,400 to $37,000 a year.

9. **Surgical Technologists** prepare operating rooms for surgery, assist during operations and carry out post-operative procedures. Training programs vary from nine to 24 months. Salaries range from $19,000 to $35,000 a year.

10. **Emergency Medical Technicians** perform basic life support skills, such as restoring breathing, controlling blood loss and treating shock victims. This job requires some 120 hours of classroom exercises and ten internship hours. The median salary for EMTs is a little over $20,000 a year.

11. **Certified Nurse-Midwives** are registered nurses with advanced training that allows them to care for expectant mothers, deliver babies and care for both mother and baby afterwards. To be nurse-midwives RNs must enroll in a one-year certification program. While RNs earn about $36,000 a year, nurse-midwives usually make $70,000.

12. **Genetic Counselors** provide information and support to people with birth defects or genetic disorders, or those who may be at risk for a variety of inherited conditions. A master's degree is required and the course work includes medical genetics, counseling and hands-on experience in the field. The salary ranges from $28,000 at entry level to $53,000 for an experienced counselor.

13. **Public Health Professionals** identify those at risk of a specified health problem. They also implement and evaluate interventions to prevent such health problems. Many colleges and universities award a bachelor's degree in public health; most advanced positions require a master's degree. Public health professionals' salaries vary by specialty, experience, geographic location and level of education. Average salary for all specialties is $73,000.

[See Appendix B for more information on these jobs]

These are only a few of the health care professions available. For instance, let me give you a short list of just some of the health care jobs that can be had with only a **certificate or on-the-job training:** Cardiovascular Technologist, Dental Assistant, Histotechnologist, Human Service Worker, Massage Therapist, Nuclear Medicine Technologist, Phlebotomist and Psychiatric Mental Health Technician.

Other examples I am familiar with include:

_____

_____

_____

_____

If you are interested in learning more about health care professions or would like to build a reference library for your students, I have a list of available publications *(Appendix A)* or look in the reference section of your library under Health Professions Occupations.

C. Why should your students consider careers in the health professions?

1. These are good, steady jobs. Young people, who train for health care careers, are going to have skills that are in demand and these skills are not going to stop being in demand. Opportunities in the health care field are only going to grow in the future.
2. Health care jobs pay well. The student, who chooses this career path, will be able to earn a good living and support a family.
3. Health care careers are attainable. Not all of them require graduate degrees. As I have demonstrated, the qualifications for many health care jobs are two-year associate degrees or completion of even shorter training programs.
4. Opportunities for advancement abound. A student, who opts for a health career at one level, may well decide to seek additional training in the future and move up.
5. Health care is a respected career choice. The young person who chooses a health care career will be looked up to in his or her community and will also be making an important contribution to that community.

I think health care careers are rewarding because...

_____

_____

_____

_____

D. What does a high school student need to do to be eligible for a health care career?

To become a health professional, first and foremost, students need to complete their high school educations and be awarded either a diploma or GED. To the greatest extent possible they should be encouraged to take courses with a strong concentration in mathematics and the sciences such as biology, chemistry, general math, algebra, geometry, business math, statistics, etc. In addition students must take the national placement tests, either SAT (Scholastic Aptitude Test) or ACT (American College Test), and make scores that are acceptable for entry into whatever kind of program they are aiming for, whether it be a four year college, junior college, vocational school or training program.

For specific entry and/or admission requirements either you or your interested students should consult the specific institutions that offer these programs. There are many of them throughout the country. For a list, you might contact your local department of education, the state board of education or the National Association of Colleges and Universities.

E. What advice would you give to parents on financing an education in the health professions?

There are many ways to finance an education. This is no longer the insurmountable obstacle it once was. Today, there are scholarships, loans, grants and an assortment of other student assistance programs. The key is to locate these programs and then follow application procedures, which are likely to be different for each program.

Your search might focus on the following:

Federal, State and Local Government financial aid programs. (Scholarships, Grants, Loans, Work/Student Aid, etc.)

Private sector financial assistance including:

- Corporations, small business, etc.;
- Professional associations and groups;
- Foundations, affiliated organizations and/or individuals;
- Hospitals, clinics and other health care facilities;
- Medical supply, equipment and pharmaceutical companies;
- Community based organizations like churches;
- Social groups such as sororities and fraternities;
- National Organizations (4H Club, YMCA, YWCA, Boys and Girls Clubs); and

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- Financial institutions (banks, savings and loans, and credit unions).

I have a list of specific financial aid programs that I would be happy to leave with you *(Appendix C)*.

Some methods of funding health professions training locally are:

_____

_____

_____

_____

F. What can you, as guidance counselors, teachers and school administrators, do to create, reinforce and nurture this interest?

First and foremost, become knowledgeable about the health professions and share this information as part of your everyday interaction with your students and their parents.

Other ways to get the word out about careers in health care are:

1. Talk about health careers during counseling sessions,
2. Make information and resources available,
3. Display exhibits on health careers,
4. Invite speakers from the health professions,
5. Take field trips to health care facilities,
6. Explore opportunities for students to volunteer or work at health care facilities, and
7. Take advantage of local federal government health care facilities such as Area Health Education Centers, Community Health Centers, Migrant Health Centers and the Health and Human Services Career Academy (*See Appendix D*).

G. Why is it important to get more young people into health care careers?

Today, there are shortages in health care. Over 3,000 mostly rural and minority communities do not have adequate health care to meet their needs. If current trends continue, the situation will only get worse.

Thus, by exposing your students to worthwhile, rewarding careers you are also helping medically underserved communities and improving access to health care for many people who simply don't have it. Your effort is a gift that not only keeps on giving, but snowballs. Every student, who goes into health care, affects the welfare of hundreds of patients, who together change the course of whole communities. It is no small contribution.

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Health Professions Reference Material

1. 120 Careers in the Health Care Field
   By Stanley Aperin, Editor
   Ballinger Publishing Company

2. 150 Careers in the Health Care Field
   US Directory Service
   121 Chanlon Road
   New Providence, NJ 07974
   *ISBN: 0-87228-8110

3. 270 Ways to Put your Talents to Work in the Health Field
   National Health Council
   1730 M Street, Suite 500
   Washington, DC 20036
   202-785-3910
   http://www.nhcouncil.org

4. A Career in Health Care
   (Career Opportunities Series)
   By Shelly Field
   ISBN: 08163382X

5. A Career in Health Care (Getting Ready Series)
   By Bill Lund and Peter Ford
   (reading level for ages 9-12)
   ISBN: 05635292X

6. Career Planning Guide for the Allied Health Professions
   By Zubie Metcalf
   Williams and Wilkins Publishing
   ISBN: 0683301667

7. Careers Without College
   By Peggy Schmidt
   Peterson's Publishing
   ISBN: 0538717246

8. Cool Careers for Girls in Health
   By Ceal Paternack
   Impact Publishing
   ISBN: 1570231184

9. Exploring Health Careers: Real people tell you what you need to know
   David Hayes, Editor
   Ferguson Publishing Company
   ISBN: 0894342177

10. Health Care Career Directory 1st Edition
    The Career Press
    180 Fifth Avenue, P.O. Box 34
    Hawthorne, NJ 07507
    1-800-CAREER-1

11. Health Care Careers for the 21st Century
    By Saul Wischnitzer
    JIST Works Inc. Publishing
    ISBN: 1563706679

12. Health Professions Career and Education Directory
    27th Edition
    American Medical Association
    ISBN: 1579470637

13. The Helping Professions: A Career Sourcebook
    By William Burger
    Thomas Learning Publishing
    ISBN: 0534364756

14. Minority Health Resources Directory
    Anrow Publishing
    5515 Security Lane, Suite 510
    Rockville, MD 20852
    301-230-7892

15. American Association of Colleges of Podiatric Medicine
    1350 Piccard Drive, Suite 322
    Rockville, MD 20850-4307
    1-800-922-9266
    http://www.aacpm.org

16. Occupational Outlook Handbook, 2000-01 Edition
    U.S. Department of Labor
    Bureau of Labor Statistics
    ISBN: 1563706768
    312-353-1800
    http://www.bls.gov

17. Peterson's Job Opportunities
    (Set for Health and Science)
    ISBN: 1560798939

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Appendix B: Examples of Health Professions

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Overall, there were 150,000 Emergency Medical Technician (EMT) jobs in 1996. Twenty-five percent worked in hospitals; 30% worked for police, fire or rescue squads; and 40% held jobs with private ambulance services. It is not uncommon for EMTs in rural areas to be unpaid volunteers. Irregular and long working hours, often over 50 hours a week, are typical.

An EMT-Basic (EMT-B) has the least amount of training needed to qualify as an emergency medical technician. Along with other EMTs, an EMT-B performs basic life support skills such as opening airways, restoring breathing, controlling blood loss, treating shock, and immobilizing using such equipment as stretchers, backboards, oxygen devices and splints.

Training for an EMT-B consists of 100-120 hours of classroom exercises and ten internship hours in a hospital emergency room. These training programs are offered through hospitals, police and fire departments, and some colleges. Upon completing the program, a trainee must pass written and practical examinations at the state or national level to be awarded the title of Registered EMT-Basic.

*Earnings of EMTs depend on the employment setting and geographic location as well as the individual's training and experience. Median annual salary of EMTs was $20,290 in 1998. The lowest ten percent earned less than $12,700 and the highest ten percent earned more than $34,480. Private ambulance services paid a median salary of $18,300 in 1997; local government services, $21,900; and hospitals, $19,900.

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.

EMERGENCY MEDICAL TECHNICIAN

Kids into Health Careers — Bureau of Health Professions

Athletic Trainers prevent, care for and rehabilitate athletic injuries, following treatment and rehabilitation procedures prescribed by the team physician. Trainers give immediate first aid, tape injuries, supervise diets, assist in purchasing and fitting athletic equipment, and educate athletes about good lifetime health habits. On game day, an athletic trainer may help prepare athletes for competition, recommend that certain players refrain from physical activity and treat any injuries that may occur during the competition. Kinesiology is a closely related field of study that focuses on human movement and physical activity.

High schools, colleges and universities may hire Athletic Trainers to monitor athletes on many sports teams. Professional football, baseball, hockey and basketball teams almost always have a permanent athletic trainer on staff. Other employers include businesses with athletic training facilities and health clubs. Sports medicine clinics and health clubs hire athletic trainers on a full-time basis. For some positions, extensive travel may be mandatory.

Over 100 accredited institutions offer bachelor's and master's degrees in athletic training. The National Athletic Training Association (NATA) also offers graduate level programs. Most employers require certification. This involves graduation from an accredited program, fulfillment of internship hours (supervised training and additional coursework) and successful completion of the certification examination offered by the NATA Board of Certification. States have individualized licensing requirements.

*Medial hourly earnings of sports/physical training instructors and coaches were $10.69 an hour in 1998. The lowest ten percent earned less than $5.70 an hour and the highest ten percent earned more than $23.10 an hour. In 1997 median hourly earnings for the largest employers of atheletic trainers were:

Colleges & Universities	$13.70
Elementary & Secondary Schools	$11.00
Miscellaneous, amusement & recreation services	$9.70
Civic & social associations	$7.80

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.

ATHLETIC TRAINER

Physical Therapists (PTs) work with people, who have been physically disabled by illness or accident or who are born with a handicap. Treatment may include exercise to improve muscle strength and coordination; application of heat, cold water, or electricity to relieve pain or improve the patient's condition; therapeutic massages to relieve pain and reduce swelling; and the use of wheelchairs or crutches to restore a patient's mobility. Physical therapists work with individuals suffering from a wide range of conditions, including multiple sclerosis and cerebral palsy, burn injuries, nerve damage, amputation, cardiovascular disease and arthritis.

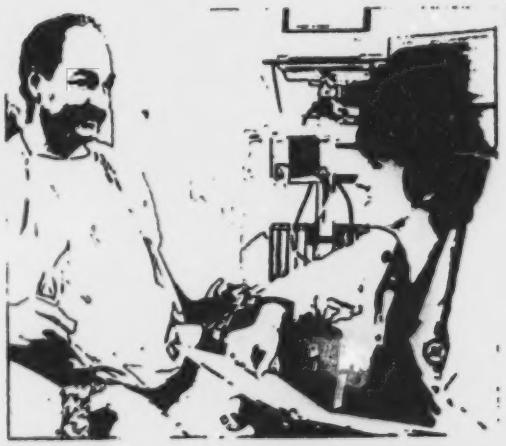
While 30% of practicing physical therapists were employed by hospitals in 1995, 25% worked in specialized physical therapy offices. Others worked in physicians' offices, nursing homes, schools or rehabilitation centers. Increasingly, therapists are choosing private practice and may contract their services to rehabilitative health centers or individual patients. Advanced physical therapists may engage in research in the field or teach at academic institutions.

Employment in the field of physical therapy requires training accredited by the American Physical Therapy Association. Physical therapists must also be licensed by the State in which they choose to practice. In 1995, there were 65 bachelor's degree programs and 80 master's degree programs, with more being developed. These programs are very selective and admission is competitive. Firsthand experience and high grades in the sciences will give an applicant the edge over the rest of the field. Those with a bachelors degree in a related science are still eligible for entrance into a master's degree program. A masters degree in physical therapy is almost always required for advanced administrative or other upper level jobs.

*Median annual earnings of physical therapists were $56,600 in 1998. The lowest ten percent earned less than $35,700 and the highest ten percent earned more than $90,870. Median annual earnings in the industries employing the largest number of physical therapists in 1997 were as follows:

Home health care services	$65,600
Nursing and personal care facilities	$60,400
Offices of other health care practitioners	$56,600
Offices and clinics of medical doctors	$55,100
Hospitals	$50,100

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.



PHYSICAL THERAPIST

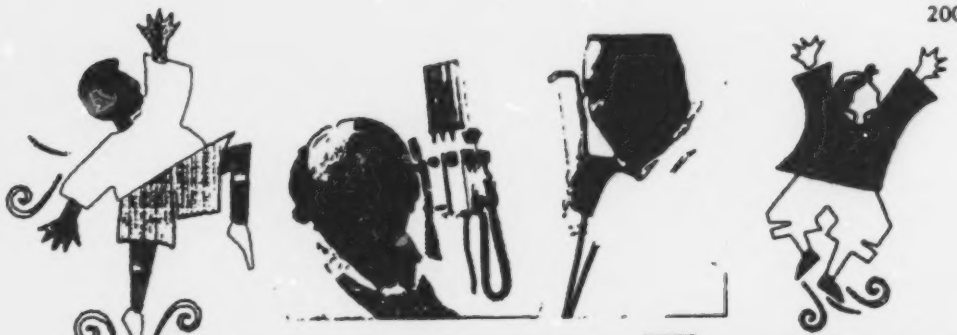
Registered Respiratory Therapists (RRTs) work under a physican's supervison to treat and care for patients with pulmonary disorders. Patients may suffer from chronic asthma or emphysema, or may be victims of heart attack, stroke, shock or AIDS. RRTs care for premature infants with underdeveloped lungs, as well as for the elderly, who have increased susceptibility to pulmonary disease. Some common duties of a respiratory therapist include administering oxygen to stimulate or compensate for breathing; measuring lung capacity; monitoring blood concentrations of oxygen, carbon dioxide and pH level (acidity); and using equipment such as ventilators to maintain a patient's oxygen supply. RRTs may administer aerosol medications to patients for inhalation or position patients in a way to prevent mucus buildup and lung obstruction. Recently, RRTs have begun to assume the additional duties of cardiopulmonary technologists and may choose to specialize in other areas within the profession.

Close to 90% of RRTs work in the respiratory care, anesthesiology or pulmonary medicine departments of hospitals. Other career opportunities may exist in nursing homes, home health agencies, physicians' offices or medical equipment rental companies.

All entrants into the respiratory therapy field must complete a formal training program. The length of the program and type of credential awarded vaires among the 275 accredited programs for respiratory therapists. Community colleges offer two-year programs and award an associate's degree, while four-year colleges and universities award a bachelor's degree. If an individual has a bachelor's degree in a health related non-repiratory field, he or she may complete a one to two year program and spend two years in a clinical environment to be eligible for certification. The National Board for Respiratory Care conducts the certification examination and awards RRT credentials.

*Median annual earnings for respiratory therapists were $34,830 in 1998. The lowest ten percent earned less that $25,910 and the highest ten percent earned more than $46,760 a year.

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.



RESPIRATORY THERAPIST

Kids into Health Careers · Bureau of Health Professions

The title of radiologic technologist covers a wide range of health care professionals who make use of radiation for diagnostic imaging. Radiographers, who most commonly produce X-rays of the body, are responsible for preparing patients for the procedure and developing the film for analysis by a physician. More experienced radiographers may administer fluoroscopies, which when taken orally, enhance soft-tissue imaging. CT technologists use computerized tomography (specialized X rays) for cross-sectional patient views. Magnetic resonance imaging (MRI) technolgists, although still radiographiers, use magnets and radio waves to create images. Sonographers and radiation therapy technologists comprise two more subsets of radiologic technologists. All radiologic technologists are under the direct supervison of a physician.

Hospitals employ the largest number of radiologic technologists, approximately 60%. Other sites that employ radiologic technologists include physicians' offices, diagnostic imaging centers, and managed care organizations. Although approximately 80% of all radiologic technologists work full-time, part-time workers are needed for some evening, weekend or on-call hours.

Most employers prefer formally trained radiologic technologists, and programs currently exist for radiography, radiation therapy and diagnostic medical sonography. Radiography programs require a high school diploma for admission and are offered at the certificate, associate;s degree and bachelor's degree levels. In 1995, there were 692 accredited training programs ranging in length from one to four years at hospitals, vocational-technical institutes, colleges and universities, and the armed forces. The American Registry of Radiologic Technologists offers the ARRT certification for radiographers, the largest group of radiologic technologists. Licensing requirements vary from state to state.

*Median annual earnings of radiologic technologists and technicians were $32,880 in 1998. The lowest ten percent earned less than $23,650 and the highes ten percent earned more that $47,610. Median annual earnings in the industries employing the largest number of radiologic technologists and technicians in 1997 were:

Medical & dental laboratories	$34,400
Hospitals	$31,600
Offices & clinics of medical doctors	$30,800

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.

RADIOLOGIC TECHNOLOGIST

Kids into Health Careers

Surgical technologists work as members of the surgical team to prepare the operating room for surgery, assist during surgery and carry out post-operative procedures. Technologists ensure that the operating room and all instruments are properly sterilized, ready the patient for surgery by preparing the incision site, transport the patient to the operating room, position him/her for surgery, and monitor the patient during and after the procedure. A scrub technologist assists surgeons by handing out instruments during surgery and ensures that the immediate surgical field remains sterile. A circulating technologist moves in and out of the sterile field, monitors supplies used during surgery, keeps accurate records of the surgical procedure, transfers and positions the patient for surgery, and sterilizes the patient's incision site. An assisting technologist has advanced training and is qualified to provide retraction at the incision site, sponge blood excesses, suction and irrigate as needed, assist in suturing the incision wound and apply surgical dressings.

Surgical technologists are typically employed in hospitals' operating rooms but may also be stationed in delivery rooms, emergency rooms and in central supply departments. Increasingly, technologists may be hired by clinics, out-patient surgical centers, physician or dental offices where minor surgery is performed, and in other facilities that require a sterile environment specialist. Most surgical technologists will work a 40-hour week but may need to be available on weekends, in the evenings, and on holidays.

In 1995, there were 147 accredited surgical technology-training programs. Usually, a high school diploma is a prerequisite for admission to these programs, which may be offered by community and junior colleges, hospitals and vocational-technical institutions. The length of training ranges from nine months to 24 months, depending on whether a certificate, diploma or associate's degree is awarded. The Liaison Council on Certification offers voluntary certification.

*Median annual earnings of surgical technologists were $25,780 in 1998. The lowest ten percent earned less that $18,930 and the highest ten percent earned more that $35,020 a year.

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.

SURGICAL TECHNOLOGIST

Dispensing Opticians make and fit the eye glasses or lenses prescribed by Ophthalmologist and Optometrists. They measure facial contours and assist in frame and lens selection. Some Opticians may also grind and make lenses but generally rely on assistant personnel to do this. Finally, Dispensing Opticians adjust and fit the frame to the customer's specifications and make any necessary repairs to broken frames or lenses. Some Dispensing Opticians specialize in fitting contact lenses, artificial eyes or cosmetic shells to cover eye abnormalities. The techniques needed for these procedures often involve the use of specialized equipment and require additional presicison for working so close to the delicate structures of the eye. Dispensing Opticians must also assume the daily tasks of keeping and updating client records, maintaining stock and office supplies, and handling payments.

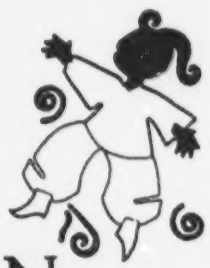
Dispensing Opticians are generally employed in one of two places. Many are hired by Ophthalmologists and Optometrists, who provide patients with the option to buy glasses directly. Others work in stores that sell eyeglasses. Some may work for large-scale eyeglass manufacturers.

Depending on the employer, training in this field may be done informally on the job, as part of a formal apprenticeship or in a post-secondary institution. Generally, a small optical practice will train employees on the job, while larger practices have a structured apprenticeship program, which may last from two to four years. Formal training programs may be offered in community colleges and some universities. In 1995 there were close to 40 such programs. They can be one or two years in length, a Dispensing Opticians vary, and in many states licensing is not required.

*Median annual earnings of Dispensing Opticians was $22,440 in 1998. The lowest ten percent earned less that $21,420 and the highest ten percent earned more that $37,080. Median annual earnings in the industries employing the largest number of dispensing opticians in 1997 were as follows:

Offices and clinics of medical doctors	$25,900
Retail stores, not elsewhere classified	$21,500
Offices of other health care practitioners	$20,100

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.



DISPENSING OPTICIAN

Pharmacy Technicians function as support personnel for pharmacists. The duties of a Pharmacy Technician vary with state regulations. In general Technicians straighten and organize the pharmacy, assist in updating patient records, keep the pharmacy fully stocked and complete prescription labels under the direction of Pharmacist. Some may also receive prescription orders and Pharmacy Technicians work in the same settings as Pharmacists. These include neighborhood pharmacies, hospitals, independent laboratories, federal agencies and pharmaceutical companies. A Technician may be employed on a part-time or full-time basis.

The educational requirements for Pharmacy Technicians vary according to the job they are hired to perform. Some, who are merely assistants and work only under direct supervision, may be hired without any formal training. However, the majority of Pharmacy Technicians attend a community college or vocational-technical school where they are trained in the fundamentals of pharmaceuticals science. An associate's degree is the most significant degree awarded for this field, and it takes two years to obtain.

*Pharmacy Technicians earned a median wage of $8.54 an hour in 1998. The lowest ten percent made less than $6.08 and the highest ten percent, more than $12.73. Median hourly earnings of Pharmacy Technicians were $8.00 in drug stores, $8.40 in grocery stores, and $8.50 in department stores in 1997.

Certified Technicians may earn more. Shift differentials for working evenings or weekends can also increase earnings. Some technicians belong to unions representing hospital or grocery store workers.

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.

PHARMACY TECHNICIAN

Physician Assistants (PAs) work under a physisian's supervision and perform patient care tasks, traditionally undertaken by doctors. PAs perform complete physical examinations, diagnose illness, administer treatment, order and review laboratory tests and X-rays, and counsel patients on health problems. Although most PAs are allowed to prescribe medication, the state laws governing this practice may vary. PAs are always directly supervised by a physician; the extent of supervision depends upon the work setting. The majority of physician assistants choose to work in primary care, while the rest specialize in such areas as surgery (surgeon's assistant), emergency medicine or pediatrics.

Since physician assistants work so closely with physicians, their work schedules may be hectic and variable. Physicians' offices employ the largest number of PAs, followed by health clinics, HMOs, federal government agencies, hospitals, nursing homes and correctional facilities. It is common for physician assistants to work in areas where physicians may be in short supply.

Employment as a Physician Assistant requires training in an accredited PA program. There are currently over 70 such programs in the United States, typically affiliated with medical schools or schools of allied health. Applicants to a Physician Assistant program usually have a background in patient care and often have earned a bachelor or master's degree. After two years of study and training, graduates earn a baccalaureate degree, associate's degree, master's degree or a certificate of completion, depending on the program. Forty-nine states require a certifying exam for employment as a Physician Assistant-Certified (PA-C). To maintain this status, state regulations specify 100 hours of continuing medical education every two years and a re-certification exam every six years.

*The median annual salary of Physician Assistants was $47,090 in 1998. The lowest ten percent earned less than $18,600 and the highest ten percent earned more that $86,760 a year. Physician Assistants working in doctors' offices and clinics earned a median $41,100 in 1997. Those working in hospital earned $57,100.

According to the American Academy of Physician Assistants, median income for physician assistants in full-time clinical practice in 1998 was about $62,200; median income for first first year graduates was about $54,000.

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.

PHYSICIAN ASSISTANT

Uniform Services: Medical Corp

The United States Armed Forces is the largest employer in our country, which is comprised of the Army, Air Force, Navy, and Marine Corps. Over 75% of the 2,000 occupations currently available to members of the armed forces translate into civilian careers. Among them are a variety of health care related careers. Physician, dentist, optometrist, nurse, therapist, veterinarian and pharmacist are professions with the rank of medical officer. Enlisted health care providers include medical laboratory technicians, medical tech-nologists, radiologic technologists, emergency medical technicians, dental assistants, optical assistants, pharmaceutical assistants and veterinary assistants. Usually, military health professionals simply need to acquire registration or certification to practice as a civilian.

Health care providers in the military are still required to follow all of the regulations mandated by the armed forces. They may be assigned to military hospitals, sea-bound vessels, a clinic in an under-served foreign country or a laboratory.

Those who enter the military must agree to serve for a specified number of years, an obligation that is legally binding. They must pass a physical examination and the written Armed Services Vocational Aptitude Battery test. Enlisted recruits undergo a two to three month "basic" training period, preparing them for the rigors of a life in the military. Then they proceed into occupational training, which can last from ten weeks to a year, and is offered in numerous health disciplines. Individuals, who receive free medical training at the Uniformed Services University of Health Sciences, agree to serve up to seven years in the military health service. They are automatically assigned the rank of officer.

*Military salaries are based on rank and number of years in the service. In 1995, military personnel on average earned $29,300, while officers averaged $52,800. However, the military provides free room and board, free medical and dental care, an allowance for military clothing, privileges in discounted military shopping centers, travel opportunities and 30 days of paid vacation a year. For those interested in a health profession, enlistment allows them to avoid the steep debts of graduate school and still receive excellent training. Members of the armed forces seeking additional education are eligible for financial reimbursement under the New Montgomery GI Bill.

Increasingly, the military will recruit individuals with some years of study beyond high school or advanced skills. For many health care professionals, a career in the armed forces will continue to be a stable and advantageous option. Military health care professionals will also be exposed to the most advanced medical procedures and scientific equipment of our time.

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.

Occupational Therapy Assistants work with patients to complete the treatment regimen set up by therapist. An Assistant may recommend changes in treatment or alter the treatment upon the therapist's orders to do so. On a typical day, an Occupational Therapy Assistant may teach a disabled patient how to get around despite limited mobility, perform routine strengthening or muscle toning excercises with the patient, or simply carry out office tasks, such as managing insurance forms and other paperwork.

Approximately 30% of Occupational Therapy Assistants are employed by hospitals. Over 25% work in nursing and personal care facilities. The remainder are employed in private offices or home care agencies. A typical workweek is 40 hours in length and may accommodate clients, who prefer evening and weekend appointments.

An associate's degree from an accredited training program is usually required for an Occupational Therapy Assistant. There are approximately 80 such programs offered by community colleges and technical schools, usually lasting for two years. Often, applicants with prior experience in the health field or with an educational background in the sciences will be more readily accepted in these programs. Licensing requirements vary from state to state. Many of the Occupational Therapy Assistant's daily tasks are learned and perfected on the job.

*An Occupational Therapy Assistant's earning will vary by employer, state of employment and extent of job responsibility. In 1995, the average income was reportedly $27,442. In 1996, 16,000 Occupational Therapy Assistant were licensed and practicing. But the field is growing. As baby boomers reach later life and the number of individuals requiring therapeutic service increases, all Occupational Therapy Workers will be in demand. Because their services are not as expensive, assistants will be hired to perform tasks that used to be left to Occupational Therapists.

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.

OCCUPATIONAL THERAPY ASSISTANT

Certified Nurse-Midwives (CMNs) are RNs with advanced training in midwifery that allows them to care for expectant mothers and to provide a range of clinical services for women. They examine women during pregnancy; manage labor; deliver infants; and after birth, care for the newborn and mother. Other duties include preventive health care, counseling, prescribing medication (most states), conducting clinical research and teaching. All 50 states have recognized nurse-midwifery as a legal profession.

Certified Nurse-Midwives may choose private practice or be employed in hospitals, independent birthing centers or clinics. Hours will vary, although CNMs are usually on call and must be available to expectant mothers at all times.

Any registered nurse may seek certified nurse-midwife status. A certification program involves up to 12 months of training, while a master's program usually takes two years. All entrant into these CNM training programs must already have a bachelor's degree or will be awarded one upon graduation. The American College of Nurse-Midwives conducts a national examination of licensing in all 50 states.

*On average, the income of certified nurse-midwives will surpass the pay of a typical registered nurse. For example, in 1996, while an RN earned approximately $35,244 a year, CMNs earned an average of $70,100 per year. The extra schooling and training that makes independent practice possible for CNMs is responsible for this enhanced income.

There were 5,500 practicing CNMs in 1995, and the number is projected to rise in the next few years. A certified-nurse-midwife will become more and more appealing in contrast to an expensive obstetrician/gynecologist. Also, an established high rate of successful births gives CNMs a good track record.

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.

CERTIFIED NURSE-MIDWIFE

Genetic counselors provide information and support to families whose members have birth defects or genetic disorders, and to families who may be at risk for a variety of inherited conditions. They investigate the family problem, interpret information about the disorder, analyze inheritance patterns and risks, and review available options with the family. Genetic counselors use their counseling skills, combined with a background in medical genetics, to assist families through emotional times. Counselors may choose to focus on one aspect of genetics such as pediatric genetics, cancer genetics, neurogenetics or prenatal treatment.

Genetic counselors work in private practice, commercial research laboratories, public health clinics, HMOs or federal agencies. Most, however, are employed by hospitals or university medical centers, where they are concentrated in pediatric and obstetric departments. Full-time, 40-hour business weeks are standard for genetic counselors, although some hospitals may request that they be on call for emergency situations.

Master's degrees in genetic counseling can be obtained from one of the 23 training programs throughout the country. Graduate course work includes medical genetics, counseling topics, and hands-on experience in the field. An undergraduate degree in a biological science, psychology, public health or other related field is usually necessary for admission into one of these training programs. The American Board of Genetic Counseling conducts a certification examination for those who qualify.

*The genetic counselor's salary will vary by geographical location, work setting and years of experience. New graduates should expect to earn an entry salary of approximately $28,000. With experience, a genetic counselor can earn up to $53,000 a year.

Currently, there are close to 1,500 practicing genetic counselors in the United States. The small number of training programs and the small size of each graduating class ensures that the demand for genetic counselors will be large in the near future. As advances are made in genetic testing, prenatal screening and reproductive technologies, the need for genetic counseling will grow.

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.

GENETIC COUNSELOR

Public health professionals plan, implement and evaluate interventions to identify those at risk from a specified health problem and try to prevent such problems. They identify communities or groups at risk for disease, develop public policy initiatives that address global, national and community health problems and work to ensure that all individuals receive adequate health care.

Although all public health professionals work for the ultimate goal of health promotion and disease prevention, they differ in their methods. Biomedical and laboratory practitioners, health services administrators, nutritionists, environmental scientists, and occupational health and safety specialists are examples of workers who function in the Public Health arena. Public health nurses care for patients and promote their physical, mental and social well being. Environmental health workers plan, develop, implement and evaluate standards and systems to improve the quality of the physical environment as it affects health. Other specialists concentrate on food protection, radiological health, enviornmental medicine, sanitation, water quality/ resources, air pollution/resources, noise pollution, toxicology and solid waste management.

Although many colleges and universities award a bachelor's degree in public health, most advanced positions require a master's degree. There are currently 30 schools in the United States that are recognized and accredited by the Association of Schools of Public Health (ASPH). Not all schools offer programs in every specialty, but most will have relevant course work. Graduate students must take core courses in biostatistics, epidemiology, health administration, environmental health and behavioral sciences before narrowing their focus to one specialty. Admission into schools of public health is competitive, and a strong applicant will normally have come employment experience in the field. Applicants with degrees in another field such as law, medicine, business, or education may be more attractive to admissions committees. Typically, a master's program in public health takes up to two years to complete and some graduates may then pursue training at the doctoral level.

* Public health professionals' salaries vary by specialty, experience, geographic location and level of education. The average salary among all professionals is $73,000.

Health care today emphasizes preventive medicine. Thus, epidemiological, nutritional and educational data offered by public health specialists will continue to be in demand. As the baby boomer generation reaches retirement age and the nation's population shifts, more public health officials trained in the areas of gerontology (care of the aged) and long-term care will be needed. Environmental and occupational health also continue to provide diverse job opportunities.

* U.S. Bureau of Labor Statistics, "Occupational Outlook Hand-book", 2000-01 Edition.

PUBLIC HEALTH PROFESSIONALS

Examples of Career Opportunities in the Health Professions

Listed below are examples of careers in the health professions that required community or junior college training or less. In many cases, a certificate of completion or On-the-Job training is all that is required.

- Medical Records Technician
- Cardiovascular Technologist
- Dental Hygienist
- Diagnostic Medical Sonographer
- Dispensing Optician
- Emergency Medical Technician
- Histologic Technician
- Dietetic Technician
- Homemaker-Home Health Aide
- Human Service Worker
- Massage Therapist
- Surgical Technologist
- Medical Assistant
- Medical Secretary
- Nuclear Medicine Technologist
- Nurse
- Ophthalmic Medical Personnel
- Paraoptometrists
- Phlebotomist
- Psychiatric Mental Health Technician
- Radiation Therapy Technician
- Biophotographer
- Radiologic Technologist
- Environmental Health Technician

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Visit Our Website For More Information:
WWW.HRSA.GOV/BHPR/KIDSCAREERS

U.S. Department of Health & Human Services
HRSA
Health Resources & Services Administration

Kids into Health Careers · Bureau of Health Professions

Financial Aid Information

1. Airmen Memorial Foundation
   http://www.amf.org
   1-800-955-0005
   1-800-638-0594

2. Bureau of Health Professions
   http://www.hrsa.dhhs.gov/bhpr
   301-443-1700

3. College Board Information
   http://www.collegeboard.org
   The College Board
   45 Columbus Avenue
   New York, NY 10023-6992
   212-713-8000

4. College Loan Information
   http://www.salliemae.com

5. Student Loan Information
   http://www.nelliemae.org
   50 Brain Hill Office Park
   Suite 310
   Braintree, MA 02184
   1-800-FOR-TUTION

6. Division of Student Assistance
   Department of Health & Human Services
   http://www.hrsa.gov/bhpr/dsa

7. Federal Info Exchange
   http://www.rams-file.com
   555 Quince Orchard Road
   Suite 360
   Gaithersburg, MD 20878
   1-800-875-2562

8. Federal & Military ROTC school links
   http://www.gseis.ucla.edu/mm/cc/info/timeline.html
   UCLA Graduate School of Education
   & Information Studies
   Moore Hall, P. O. Box 951521
   Los Angeles, CA 90095-1521

9. Financial Aid Info Page
   http://www.finaid.org
   FinAid Page, LLC
   P.O. Box 81620
   Pittsburgh, PA 15217

10. Financial Aid/Scholarships
    http://www.finaid.org/scholarships

11. Financial Aid Filing
    http://www.ed.gov/offices/ope/express.html

12. Financial Aid Information Sites
    http://www.ohsu.edu/finaid/falinks.html
    3181 S.W. Sam Jackson Park Road
    Portland, OR 97201-3098
    503-494-8311

13. Health Resources & Services Adminstration
    http://www.hrsa.gov

14. Information on College, FinancialAid
    http://www.collegeedge.com
    http://www.embark.com

15. Kaplan Education Center
    http://www.kaplan.com

16. Link to Education related sites
    http://www.mapping-your-future.org

17. National Association of Colleges
    http://www.nacac.com
    1631 Prince Street
    Alexandria, VA 22314-2818
    1-800-822-6285

18. National Association of Student Fin Aid Admin
    http://www.nasfaa.org
    1129 20th Street NW
    Suite 400
    Washington, DC 20036-3489
    202-785-0453

19. On-line application
    http://www.ed.gov/prog_info/SFA/
    http://www.fafsa.ed.gov

20. On-line guide to colleges
    http://www.petersons.com
    202 Carnegie Center
    Princeton, NJ 08540
    609-243-9111

21. Pennsylvania Higher Education Assistance
    http://www.pheaa.org
    1-800-692-7392

22. Sandy Spring National Bank
    http://www.ssnb.com
    1-800-399-5919

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23. Scholarship Resource Network
http://www.rams.com/sm

24. Special Operations Warrior Foundation
http://www.specialops.org
2907 West Bay-to-Bay Blvd.
Tampa, FL 33690
813-805-9500/0640

25. USA Group (United Student Aid)
http://www.usagroup.com
USA Group
P. O. Box 7039
Indianapolis, IN 46207-7039
1-800-428-9250

26. US Department of Education
http://www.ed.gov
1-800-4-FEDAID

27. Veteran's Benefits Administration
http://www.va.gov
810 Vermont Avenue, NW
Washington, DC 20420
1-800-GI-BILL-1

28. Access America for Students
http://www.students.gov

29. Need A Lift?
Financial Aid Handbook
Published: American Legion
http://www.legion.org/educast.htm

30. Central Scholarship Bureau
1700 Reisterstown Road
Suite 222
Baltimore, Maryland 21208
410-415-5558
http://www.centralsb.org/

Federally Funded Health Facilities

Where You Can Get Additional Information About Heatlh Careers

The following federally funded health programs provide additional health career information. The health facilities on the attached list are engaged in various activities to get kids interested in health careers. They can be used as resources or you can visit/tour a facility in your local area. For information about one of the programs near you, please contact 301-443-2100 for HCOP and COE programs; and for the AHEC program please contact, 301-443-6950 or visit the Bureau of Health Professions web page at www.hrsa.gov/bhpr

Health Careers Opportunity Program (HCOP)

The Health Careers Opportunity Program (HCOP) strives to build diversity in the health professions by developing a more competitive applicant pool. The program provides students from disadvantaged backgrounds an opportunity to develop the skills needed to successfully compete for admission to and graduation from health professions schools, allied health professions schools, graduate programs in behavioral and mental health, and programs to train physician assistants.

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Centers of Excellence (COE)

The Centers of Excellence (COE) Program is designed to strengthen the national capacity to train underrepresented minority (URM) students in the health professions. COE supports programs at certain Historically Black Colleges and Universities, as well as Hispanic and Native American COEs at health professions schools (schools of medicine, osteopathic medicine, dentistry, pharmacy; and other public and non-profit or educational entities and graduate programs in mental or behavioral health) that train a significant number of the targeted minority students. COE also supports "Other" Minority Health Professions Education programs at health professions schools having enrollments of underrepresented minorities above the national average.

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Area Health Education Centers (AHEC)

The Area Health Education Centers (AHEC) program assists schools to develop and operate AHECs as an attraction and means of retaining health care personnel in scarcity areas. By linking academic resources with local planning, educational and clinical resources, the AHEC program establishes a network of community based training sites to provide educational services to students, faculty and practitioners in underserved areas and at the same time, improve the delivery of health care in the service area. The program's goal is to increase the number of health professions graduates who ultimately will practice in underserved areas.

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Area Health Education Centers (AHEC)

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Career Academics

High school career academies are small learning communities within large, usually urban high schools. Their personalized structure offers students the opportunity to build positive relationships with caring adults and explore and develop career skills. Research and personal reports indicate that students in academies stay in school, graduate, have increased expectations for their own success, and achieve positive post-secondary experiences in employment and educational areas. Of the approximately 2000 academies nationally, almost 20% are focused on health related careers.

Mission of the Initiative

The mission of the National Network of Health Academies and Health Career-Focused Programs is to increase the effectiveness of high school health career programs and the numbers of students entering health occupations. By focusing on issues of common interest and concern to health career oriented programs, and identifying and leveraging resources, a national network of cutting edge, school to work, health career-focused programs will be established

The network will provide and generate support for high school students to learn about and pursue careers in health-related occupations through the collaboration of school systems; Health and Human Services Agencies, resources and funded initiatives; individuals; and national organizations dedicated to expanding and improving life options for youth.

The overarching mission of the initiative is to have a powerful and positive impact on the health of entire communities through increased educational opportunities and the services that will be generated because of them.

Highlights of Network Goals/Accomplishments

Built partnership with the National Consortium of Health Science and Technology Education, Secured Health-focused, Academic and Skill Standards approved curriculum and training, Developed health academy training strand for the "Building Linkages" Health Conference Utah, November 2000, (Secretary Shalala invited keynote speaker/500 health teachers and researchers attend; official kick-off of network sites planned), Coordinated Federal Job-Shadows Day and authored SHADOWS manual, Identified potential pilot sites, Developing health industry linked student work-based experiences manuals, Building a coalition of support within the Department of Health and Human Services, and Reaching out to potential business and community organizations to build economies of scale and speed.

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Career Academies

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Wingate High School/School of Health,Arts,
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Nursing Workforce Diversity Program

The Nursing Workforce Diversity Program (NWD) is a principal Division of Nursing mechanism for improving the racial and ethnic diversity of the basic nursing workforce, which is essential to meeting the increasing needs of the population for culturally sensitive and appropriate health care. Grants and contracts are awarded under Section 821 of Title VIII of the Public Health Service Act to increase nursing education opportunities for individuals who are from disadvantaged backgrounds (including racial and ethnic minorities under represented among registered nurses.

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Some Facts About

BPHC

Bureau of Primary Health Care

The People We Serve . . . *. . . The People We Are .*

BORDER HEALTH PROGRAM

PROGRAM HISTORY

Residents living along the U.S.-Mexico Border experience greater rates of communicable illnesses, particularly tuberculosis and vaccine preventable illnesses, than other groups of people across the Nation, primarily due to a lack of clean water and proper sewage disposal. Frequent movement between both countries and within the U.S. compromises continuity of health care for residents of this area. Additionally, the four States in the border area have some of the highest rates of poverty, unemployment, and uninsured people in the Nation. To address these challenges the Health Resources Service Administration (HRSA) Border Health Program (BHP) was established in 1996.

MISSION

The BHP mission is to improve the health status of people living in U.S. communities located within the U.S.-Mexico border area through specific HRSA activities, improved agency coordination, and external partnership development.

ACTIVITIES

The BHP works closely with border health coordinators in HRSA's West Central Cluster Field Office and Pacific West Cluster Field Office to manage contracts, develop partnerships, develop the HRSA Border Health Strategic/Spending Plan, and sponsor meetings.

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MIGRANT HEALTH CENTER PROGRAM

PROGRAM HISTORY

The Migrant Health Act was enacted in September 1962 by Public Law 87-692, which added section 310 to the Public Health Service Act. The Migrant Health Center (MHC) program provides a broad array of medical and support services to migrant and seasonal farm workers and their families. The Migrant Health Program (MHP) is currently authorized under section 330g of the Public Health Service Act.

MISSION

The MHC and MHP provide migrant and seasonal farmworkers and their families access to comprehensive medical care services with a culturally sensitive focus.

Migrant farmworkers have some of this Nation's most severe health and social problems and are at greater risk than the general population because of poverty, malnutrition, infectious diseases, exposure to pesticides, and poor housing. The size of the racially and culturally diverse farmworker labor force is difficult to determine, but it is estimated there may be as many as 1.5 million migratory workers and 2.5 million seasonal workers. Migrant health service levels are reflected in year-round, seasonal, and temporary (4-6 months) migrant health service delivery models.

ACTIVITIES

- MHC and MHP services may include primary care, preventive health care, transportation, outreach, dental, pharmaceutical, and environmental health. These programs use lay outreach workers, bilingual, bicultural health personnel, and culturally appropriate protocols often developed by the Migrant Clinicians Network.
- They also provide prevention-oriented and pediatric at MHCs, such as immunizations, well baby care, and developmental screenings.

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COMMUNITY HEALTH CENTER PROGRAM

PROGRAM HISTORY

Community Health Centers (CHCs) were first funded by the Federal Government as part of the War on Poverty in the mid-1960s. By the early 1970s, about 100 neighborhood health centers had been established under the Economic Opportunity Act (OEO). These centers were designed to provide accessible, dignified personal health services to low income families. The PHS began funding neighborhood health centers in 1969. With the phaseout of OEO in the early 1970s, the centers supported under this authority were transferred to the PHS. Currently, the CHC Federal grant program is authorized under section 330 of the PHS Act.

MISSION

CHCs provide family-oriented primary and preventive health care services for people living in rural and urban medically underserved communities. CHCs exist in areas where economic, geographic, or cultural barriers limit access to primary health care for a substantial portion of the population; and they tailor services to the needs of the community.

ACTIVITIES

- Offer CHC services that include primary and preventive care, outreach, and dental care.
- Offer essential ancillary services such as laboratory tests, X-ray, environmental health, and pharmacy services as well as related services such as health education, transportation, translation, and prenatal services.
- Provide links to welfare, Medicaid, substance abuse treatment, WIC, and related services.
- Facilitate the involvement of more than 65 percent of the CHCs in managed care contracts, including HMO primary care provider (networks) or State Medicaid managed care case manager networks.

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